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Selection of Schedules

The following is an alphabetical list of various commercial and industrial improvements. The list shows the use-type from Schedule A or, if Schedule A does not apply, the proper schedule to be used in computing the replacement cost. The list refers to commercial and industrial type construction. If the improvement involved is either a dwelling or a converted dwelling, it would be more appropriate to use the residential pricing schedules in computing the replacement cost. The following is the alphabetical listing:

- Airport facilities as follows:
 - Cargo facilities — GCI warehouse.
 - Maintenance and service buildings — GCI small shop.
 - Passenger terminals, ground floor — GCM hotel/motel service.
 - Passenger terminals, upper floor — GCM general office.
- Apartments as follows:
 - Commercial flats, one (1) through three (3) stories and wood joist framing — GCR apartment unit.
 - Commercial flats, four (4) or more stories — GCM apartment unit.
 - Club house — GCR service.
 - Elevator apartments, one (1) through three (3) stories and wood joist framing — GCR apartment unit.
 - Elevator apartments, four (4) or more stories — GCM apartment unit.
 - Fireproof steel apartments — GCM apartment unit.
 - Fire resistant apartments — GCM apartment unit.
 - Reinforced concrete apartments — GCM apartment unit.
 - Walk-up wood joist framed apartments — GCR apartment unit.
 - Service areas "1" — GCR motel service.
- Arenas — Schedule G.
- Auditoriums — GCM theater.
- Auto and truck agencies as follows:
 - Administrative offices as follows:
 - One story wood joist framing — GCR general office.
 - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
 - Body shop — "1" — GCI commercial garage.
 - Parts storage — "1" — GCI utility storage.
 - Service garage — GCM auto service.
 - Showrooms — GCM auto showroom.
- Auto and truck repair as follows:

- Auto agencies service departments — GCM auto service.
- Body shops — "I" — GCI commercial garage.
- Department store centers — GCM auto service.
- Franchise type centers — GCM auto service.
- Small private garages — GCM utility storage.
- Truck terminal garage — GCI small shop.
- Industrial related garages — GCI small shop.
- Bakeries — GCM general retail.
- Banks as follows:
 - One story wood joist framing — GCR bank.
 - Multi-story or fire resistant, reinforced concrete, or fire-proof steel framing — GCM bank.
- Barber shops — GCM general retail.
- Bars and grills — GCM general retail.
- Beauty shops — GCM general retail.
- Boat garages or storage — GCM utility storage.
- Boat sales and service — GCM general retail and utility storage.
- Body shops — GCI commercial garage.
- Bottling plants as follows:
 - Administrative office — GCI office.
 - Processing facilities — GCI manufacturing.
- Bowling alleys — GCM bowling alley.
- Bulk plants as follows:
 - Administrative offices — GCI office.
 - Maintenance and service facilities — GCI small shop.
 - Processing facilities — GCI manufacturing.
 - Tanks — Schedule G.
- Bus terminals as follows:
 - Inter-city — GCM hotel/motel service.
 - Urban-suburban — GCM general retail.
- Carry outs — GCM general retail and utility storage.
- Car washes as follows:
 - Auto wash — GCM car wash auto.
 - Drive-through — Schedule G.
- Churches — GCM theater.
- City clubs — GCM hotel.
- City halls as follows:
 - One story wood joist framing — GCR general office.

- Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
- Class and lectures as follows:
 - One story wood joist framing — GCR general office.
 - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
- Classroom multipurpose as follows:
 - One story wood joist framing — GCR general office.
 - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
- Club houses — GCR service.
- Cold storage — GCI small shop.
- College facilities as follows:
 - Class and lecture as follows:
 - One story wood joist framing — GCR general office.
 - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
 - Laboratory as follows:
 - One store wood joist framing — GCR general office.
 - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
 - Student union as follows:
 - One story wood joist framing — GCR general office.
 - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
- Community recreational centers as follows:
 - One story wood joist framing — GCR general office.
 - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
- Condominiums as follows:
 - One (1) through three (3) stories and wood joist framing — GCR apartment unit.
 - Four (4) or more stories — GCM apartment unit.
 - Residential row type — Residential Schedule A.
- Convenience markets — GCM convenience market.
- Convents — GCM apartment.
- Correctional institutions as follows:
 - One story wood joist framing — GCR general office.
 - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.

- Country clubs — GCM hotel service.
- Courthouses as follows:
 - One story wood joist framing — GCR general office.
 - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
- Credit unions as follows:
 - One story wood joist framing — GCR bank.
 - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing - GCM bank.
- Dairies as follows:
 - Administrative offices — GCI office.
 - Plant — GCI manufacturing.
 - Small retail type -"2" — GCM general retail and utility storage.
- Data processing centers -"3" as follows:
 - One story wood joist framing — GCR general office.
 - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
- Day care centers as follows:
 - Commercial type as follows:
 - One story wood joist framing — GCR general office.
 - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
 - Residential type — Residential Schedule A.
- Dental laboratories as follows:
 - One story wood joist framing — GCR medical office.
 - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM medical office.
- Dental offices as follows:
 - One story wood joist framing — GCR medical office.
 - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM medical office.
- Department stores — GCM department stores.
- Discount stores — GCM discount.
- Dispensaries as follows:
 - One story wood joist framing — GCR general office.
 - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
- Dock facilities — Schedule E.
- Dormitories — GCM apartment.
- Drive-in theaters — Schedule G.

- Drug stores — GCM general retail.
- Dry cleaners as follows:
 - Administrative office — GCI office.
 - Plant — GCI small shop.
 - Small retail type — GCM general retail and utility storage "2".
- Electric generation as follows:
 - Auxiliary maintenance and service buildings — GCI small shop.
 - Processing facility — GCI power generating plant.
- Emergency medical centers as follows:
 - One story wood joist framing — GCR medical office.
 - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM medical office.
- Factories — GCI manufacturing.
- Financial offices as follows:
 - One story wood joist framing — GCR general office.
 - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
- Fire stations — GCI office.
- Food and beverage processing facilities as follows:
 - Administrative offices — GCI office.
 - Plant — GCI manufacturing.
- Fraternal associations as follows:
 - Administrative offices as follows:
 - One story wood joist framing — GCR general office.
 - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
 - Assembly hall — GCM theater.
 - Dining areas — GCM dining lounge.
- Fraternity houses as follows:
 - Residential type — Residential Schedule A.
 - Modern high rise — GCM apartment.
- Funeral homes as follows:
 - Residential type — Residential Schedule A.
 - Designed as follows:
 - One (1) through three (3) stories and wood joist framing — GCR funeral home.
 - Four (4) or more stories — GCM funeral home.
- Furniture marts as follows:
 - Sales area — GCM discount.

- Warehouse area — GCM utility storage.
- Garage as follows:
 - Residential type — Yard improvement rule.
 - Commercial type — Commercial garage schedule.
- Golfing facilities as follows:
 - Club houses, private course — GCM hotel service.
 - Club houses, public course — GCM general retail.
 - Driving ranges — Schedule G.
 - Miniature courses — Schedule G.
 - Regulation play — Schedule G.
 - Short play — Schedule G.
- Governmental offices as follows:
 - One story wood joist framing — GCR general office.
 - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
- Grain elevators — Grain elevator schedule.
- Greenhouses as follows:
 - Commercial type — Schedule G.
 - Residential type — Residential Schedule G.
- Gymnasiums — GCM theater.
- Hangars — GCI hangar.
- Health clubs — GCM health club.
- Hospitals as follows:
 - Convalescent as follows:
 - One story wood joist framing — GCR general office.
 - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
 - Full line as follows:
 - One story wood joist framing — GCR general office.
 - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
- Hotels, resort lodge, as follows:
 - Guest rooms — GCM hotel/motel units.
 - Service — GCM hotel/motel service.
- Ice skating rinks — GCM ice rink.
- Industrial facilities as follows:
 - Administrative offices — GCI office.
 - Maintenance and service — "I" — GCI small shop.
 - Manufacturing, processing, and assembly — GCI manufacturing.

- Receiving and storage — "1" — GCI warehouse.
- Labor associations as follows:
 - Administrative offices as follows:
 - One story wood joist framing — GCR general office.
 - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
 - Assembly halls — GCM theater.
- Laundromats — GCM general retail.
- Libraries as follows:
 - One story wood joist framing — GCR general office.
 - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
- Lounges — GCM dining lounge.
- Maintenance and service shops — GCI small shop.
- Mall enclosures — Mall concourse area schedule.
- Manufacturing facilities as follows:
 - Manufacturing, processing, and assembly — GCI manufacturing.
 - Small shops — GCI small shop.
- Marinas as follows:
 - Boat sales — GCM general retail.
 - Boat service — GCM utility storage.
 - Boat garages or storage — GCM utility storage.
- Medical clinics as follows:
 - Full line — See hospitals.
 - Limited service as follows:
 - One story wood joist framing — GCR medical office.
 - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM medical office.
 - Special purpose as follows:
 - One story wood joist framing — GCR medical office.
 - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM medical office.
 - Multipurpose as follows:
 - One story wood joist framing — GCR general office.
 - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
- Mini-warehouses — GCI mini-warehouse.
- Mobile home parks — commercial yard improvement rule.
- Motels as follows:

- Low-rise walk-up type and wood joist framing — GCR motel units.
- Elevator types as follows:
 - One (1) through three (3) stories and wood joist framing — GCR motel units.
 - Four (4) or more stories — GCM hotel/motel units.
- Service as follows:
 - One (1) through (3) stories and wood joist framing — GCR motel service.
 - Four (4) or more stories — GCM hotel/motel service.
- Museums as follows:
 - One story wood joist framing — GCR general office.
 - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
- Night clubs — GCM dining lounge.
- Nursery schools as follows:
 - Residential type — Residential Schedule A.
 - Commercial type as follows:
 - One story wood joist — GCR general office.
 - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
- Nursing homes as follows:
 - One (1) through three (3) stories and wood joist framing — GCR nursing home.
 - Four (4) or more stories — GCM nursing home.
- Offices as follows:
 - Governmental as follows:
 - One story wood joist framing — GCR general office.
 - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
 - Multipurpose as follows:
 - One story wood joist framing — GCR general office.
 - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
 - Special purpose — GCI office.
 - Medical as follows:
 - One story wood joist framing — GCR medical office.
 - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM medical office.
- Open lumber storage — GCM utility storage (adjust for lack of walls and interior components).

- Parking garages — GCM parking garage.
- Photo labs as follows:
 - One story wood joist framing — GCR general office.
 - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
- Police stations — GCI office.
- Post offices as follows:
 - Designed as follows:
 - One story wood joist framing — GCR general office.
 - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
 - Rural type — GCM general retail.
 - Residential type — Residential Schedule A.
- Printing and publishing facilities as follows:
 - Administrative offices — GCI office.
 - Plants — GCI manufacturing.
 - Small commercial type — GCI small shop.
- Racquetball court building — GCM health club.
- Radio and television stations as follows:
 - Building — GCI office "4".
 - Small transmitting buildings as follows:
 - One story wood joist framing — GCR general office.
 - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
- Rectories — GCM apartment.
- Research and development facilities — GCI research/development.
- Reservoirs — Schedule G.
- Restaurants as follows:
 - Special purpose designs, supper club type — GCM dining lounge.
 - Multipurpose designs, neighborhood type — GCM general retail.
 - Fast food — Fast food schedule.
- Roller rinks — GCM bowling alley.
- Savings and loan as follows:
 - One story wood joist framing — GCR bank.
 - Multi-story or fire resistant, reinforced concrete, or fire-proof steel framing - GCM bank.
- Schools as follows:
 - Grades one (1) through twelve (12) as follows:
 - One story wood joist framing — GCR general office.

- Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
- Grades thirteen (13) plus as follows:
 - One story wood joist framing — GCR general office.
 - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
- Service stations — Service station schedule.
- Showrooms as follows:
 - Auto agency — GCM auto showroom.
 - Auto service center — GCM auto service.
- Small shops — GCI small shop.
- Steam generating plants as follows:
 - Auxiliary maintenance and service buildings — GCI small shop.
 - Processing facility — GCI power generating plant.
- Storage — GCM utility storage.
- Stores as follows:
 - Bake shops — GCM general retail and utility storage "2".
 - Beverage carry-outs — GCM general retail and utility storage "2".
 - Drug stores — GCM general retail.
 - Personal service shops — GCM general retail.
- Student unions as follows:
 - One story wood joist framing — GCR general office.
 - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
- Supper clubs — GCM dining lounge.
- Swimming pools as follows:
 - Commercial — Schedule G.
 - Residential — Residential Schedule G.
 - Pool enclosure as follows:
 - Residential type — Residential Schedule G.
 - Commercial type — GCM general retail.
- Synagogues and temples — See churches.
- Taverns, neighborhood type — GCM general retail.
- Telephone exchange offices as follows:
 - One story wood joist framing — GCR general office.
 - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
- Tennis barns — GCM health club.
- Theaters as follows:

- Community, live performance — GCM theater.
- Drive-in — Schedule G.
- Metropolitan, live performance or movie — GCM theater.
- Suburban, movie — GCM theater.
- Town halls as follows:
 - One story wood joist framing — GCR general office.
 - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
- Trailer courts — Yard improvement rule.
- Truck terminals, dock type and back-in type — GCI truck terminal.
- Tunnels — Basement rates from GCM or GCI, calculate using tunnel PAR.
- University facilities — See college facilities.
- Veterinary hospitals as follows:
 - One story wood joist framing — GCR general office.
 - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
- Warehouses — GCI warehouse.
- Water storage tanks — Schedule G.
- Youth hostels — GCR nursing home.

Note: If an item listed in the Selection of Schedules section contains a number, such as “1”, it means the following:

- "1" means if priced as a separate building, section, or floor.
- "2" means calculated percentage of each.
- "3" means generally requires a floor adjustment from Schedule C.
- "4" means a plus or minus design consideration.

Commercial and Industrial Cost Schedules

GCM Base Prices

[illegible]

SCHEDULE A.1 (continued)**GCM Base Prices (continued)**

					2											1	3	4	
					Fire Resistant											Wood	Rein	F P	
Floor	Fin	Use	Flr	Wall												Jst	Conc	Steel	
Level	Type	Type	Hgt	Type	1	2	3	4	5	6	7	8	9	10	+1	(-)	(+)	(+)	
First	FD	Country Club	12'	1															
				2															
		Funeral Home	12'	1															
				2															
		Nursing Home	10'	1															
				2															
		Hotel -- Motel Unit	10'	1															
				2															
		Apartment	10'	1															
				2															
Wall Hgt.	UF	+/-	1'	1															
				2															
	SF	+/-	1'	1															
				2															
		FO	+/-	1'	1														
				2															
		FD	+/-	1'	1														
				2															
Upper	UF	Utility	12'	1															
				2															
		Parking Garage	10'	1															
				2															
				4															
	FO	Health Club ***	12'	1															
				2															
		General Retail	12'	1															
				2															
		Mall Shops	14'	1															
				2															
			Department Store	14'	1														
				2															
			Dinning/Lounge	12'	1														
				2															
	FD	Hotel -- Motel Service	12'	1															
			2																
General Office		12'	1																
			2																
Medical Office		11'	1																
			2																
Nursing Home		10'	1																
			2																
		Hotel -- Motel Unit	10'	1															
			2																
		Apartment	10'	1															
			2																

* Add to base price (1st floor) to account for roof deck parking

** Adjust base price to account for balconies, per square foot of balcony area

***Add per court -- racquetball

-- squash

Add to base price (1st floor) to account for elevated floor construction

Typical base price (1st floor) component for roof & framing

Commercial and Industrial Cost Schedules

GCI Base Prices

[illegible]

Commercial and Industrial Cost Schedules

GCI Base Prices (continued)

* Upper floor price exclusive of walls.

GCR Base Prices

[illegible]

SCHEDULE A.3 (continued)

GCR Base Prices (continued)

Floor Level	Fin Type	Use Type	Flr Hgt	Wall Type	1	2	3	4	5	6	1 Wood Joist	7	8	9
First	FD	Motel Units	9'	1 2										
		Funeral Home	12'	1 2										
		Nursing Home	10'	1 2										
		Apartment	10'	1 2										
Upper	FO	Motel Service	12'	1 2										
		Dinning/Lounge	12'	1 2										
	FD	Motel Units	9'	1 2										
		Apartment	9'	1 2										
		Nursing Home	10'	1 2										

SCHEDULE A.4

GCK Base Rates

Light preengineered steel and pole framed buildings (used for C/I occupancies)
Per square foot, average quality, 12' eaves height

	1	2	3	4	Perimeter/Area Ratio	5	6	7	8	9
Light metal/wood siding, pole frame										
Add per P/A ratio:										
Exterior sheathing										
Insulation										
Steel girts and purlins										
Aluminum siding and roofing										
Interior liner (1)										
Heavy gauge siding and roofing (2)										
Plastic panel siding										
Sandwich paneling										
Interior finish (3)										
Unfinished occupancies (UF)										
Semi-finished occupancies (SF)										
Finished open occupancies (FO)										
Finished divided occupancies (FD)										
Add per square foot of floor area for frame variations:										
Steel post and beam										
Rigid steel frame construction										
Deduct per square foot of floor area for absence:										
Concrete floor										
Add or deduct 2% (against the total rate) per foot of wall height variation.										
Deduct 2% (against the total rate) for low profile (1:12 or less pitch) roof construction.										
Adjust for quality grade from Schedule F.										
Note (1) Liner is included with manufactured sandwich paneling										
Note (2) 24 to 20 gauge steel; .032" to .050" thick aluminum.										
Note (3) Interior Components:	Walls/ LF	Flooring	Ceiling	Ptns&OF	Lighting	Heating	Add A/C	Sprk		
Unfinished occupancies (UF)										
Semi-finished occupancies (SF)										
Finished open occupancies (FO)										
Finished divided occupancies (FD)										

Commercial and Industrial Cost Schedules

GC Base Price Components and Adjustments (continued)

* Upper floor price exclusive of walls
** Add for unit heat in mini warehouse at \$.75 per square foot

[illegible]

SCHEDULE C (continued)**Unit Cost Adjustments****WALL FINISH****Per square foot of wall surface**

Paint on masonry
 Plaster on masonry, painted
 Drywall, painted
 Lath & plaster, painted
 Hardboard paneling
 Patterned
 Plain
 Plywood paneling
 Softwood
 Hardwood
 Wood Paneling
 Softwood
 Hardwood
 Tile or block glazing

 Ceramic or quarry tile
 Enameled metal tile
 Plastic tile
 Acoustical tile
 Marble

 Add for canvas or cloth
 Add for custom grade wallpaper
 Add for standard grade wallpaper
 Add for furring, wood
 Add for furring, metal
 Add for vinyl wall covering
 Add insulation for masonry walls
 Add insulation for studded walls

FLOOR FINISH**Per square foot**

Softwood
 Hard wood
 Maple
 Parquet
 Add for sleepers
 Parquet and mastic
 Woodblock, creosoted
 Steel plate tile, heavy duty industrial
 Concrete topping, integral, plain, 1 1/2 to 2"
 Concrete hardener and sealer
 Acid proof brick, heavy duty industrial
 Asphalt tile
 Vinyl tile
 Cork and rubber tile
 Vinyl composition tile
 Sheet tile
 Sheet linoleum
 Ceramic and quarry tile
 Terrazzo
 Slate, grouted
 Marble
 Carpet and pad
 Carpet, indoor, outdoor
 Computer floor, elevated
 Gym floor, hardwood, wood sub plus sleepers
 Brick, common
 Brick, pavers, in concrete
 Flagstone, in concrete
 Epoxy
 Epoxy with colored chips
 Grating, steel or aluminum

CEILING FINISH**Per square foot**

Acoustical tile
 Mineral fiber
 Organic fiber
 Acoustical metal panel and pads
 Drywall, taped and painted
 Fiberboard panel
 Luminous panels
 Paint only, on under floor/roof structure
 Plaster on lath, painted
 Plaster on masonry, painted
 Plywood paneling, hardwood
 Wood tongue and groove, softwood
 Add for furring, wood
 Add for furring, metal
 Add for ceiling structure
 Add for ceiling insulation
 Add for ceiling suspension system

PARTITIONING**Per square of wall surface**

	1- Side	2- Side
Framed, 2 X 4 wood studs		
Drywall, painted		
Lath and plaster, painted		
Metal lath and plaster, painted		
Plywood paneling:		
Softwood		
Hardwood		
Wood paneling:		
Softwood		
Hardwood		
Add for metal studs		
Masonry, per thickness	4"	6" 8" 12"
Concrete block		
Hollow exposed		
Solid		
Clay tile		
Gypsum block		
Glazed tile		
1 face		
2 face		
Glazed block		
1 face		
2 face		
Add per side for interior wall finish from above		
Folding curtain		
Wood and plastic		
Modular metal		
Single thickness		
2" insulated		
Modular hardboard		
Modular softwood		
Modular hardwood		
Add for glazing		
Laminated gypsum 2 1/4"		
Asbestos cement		
Woven wire, including doors		
Clear glass, full height		

SCHEDULE C (continued)**Unit Finish Adjustments****APARTMENTS**

Add per square foot per floor to account for variations in

average unit size. The unit finish adjustment includes the cost of one (1) full bath, one (1) complete kitchen unit and air conditioning (if applicable). Thru-the-wall residential-type air conditioning units are not considered as real property in apartment units.

Average Unit Size	Add per S.F. W/O AC	W/AC	Average Unit Size	Add per S.F. W/O AC	W/AC
400			1350		
450			1400		
500			1450		
550			1500		
600			1550		
650			1600		
700			1650		
750			1700		
800			1750		
850			1800		
900			1850		
950			1900		
1000			1950		
1050			2000		
1100			2050		
1150			2100		
1200			2150		
1250			2200		
1300			Over		

MOTELS & HOTELS

Add per square foot per floor to account for variations in average unit size. The unit finish adjustment includes the cost of one (1) full bath.

Average Unit Size	Strip	Arrangement Back - Back	Centerhall
150			
175			
200			
225			
250			
275			
300			
325			
350			
375			
400			
425			
450			
475			
500			
525			
550			
575			
600			
625			
650			
675			
700			

Add per kitchen unit (cabinets and sink)

STRIP RETAIL

Add per square foot to account for division walls. The component for partitioning in retail models does not include the division walls that form the common walls with the adjoining units.

In the following table "X" equals:

$$X = \frac{\text{Area}}{N-1} \times \frac{1}{\text{Typical Depth}}$$

Example: The "X" value for an eleven (11) unit strip center, 200' x 80' deep, is twenty (20), calculated as follows: 16,000 SF/10 = 1,600, then 1,600/80 = 20.

The corresponding additive from the table is

X	RATE	X	RATE	X	RATE	X	RATE
10		30		50		70	
12		32		52		72	
14		34		54		74	
16		36		56		76	
18		38		58		78	
20		40		60		80	
22		42		62		82	
24		44		64		84	
26		46		66		86	
28		48		68		88	

SCHEDULE D**Plumbing**

Average cost per fixture, including supply, waste and vent lines, materials for rough and finish, labor and contractors overhead and profit. The difference between the residential rate and the commercial/industrial prices is primarily attributable to the longer pipe and sewer runs required to accommodate the latter type of construction. The residential rate is to be used for commercial structures only when the average unit size schedule is issued from Schedule C

CONVENTIONAL FIXTURES

Residential

Commercial and Industrial

WASH FOUNTAINS ("Bradly's")

36"

54"

Circular

Granito & Fiberglass

Enameled steel

Stainless steel

Semi-circular

Granito & Fiberglass

Enameled steel

Stainless steel

INDUSTRIAL GANG SINKS (30" wide)

4' Long 4-man sink

Fiberglass

Enameled steel

Stainless steel

8' Long 8-man sink

Fiberglass

Enameled steel

Stainless steel

Industrial shower heads each

Drinking fountains

Refrigerated water coolers
with hot and cold water

SHOWER UNITS

Enamel

Stainless

Column showers

Steel

Stainless

Circular, 5 person

Semi-circular, 3 person

Corner, 2 person

Multi-stall showers

Circular, 5 person

Semi-circular, 3 person

Corner, 2 person

Emergency

shower

Emergency eye wash

SCHEDULE E**GC Special Features****Mezzanines**

Per square foot, including, soffit finish, lighting, heating and plumbing unless noted.

	Frame Type			
	1	2	3	4
Unfinished				
Light Util/Storage				
Heavy Util/Storage				
Semi - Finished				
Light Mfg				
Heavy Mfg				
Finished Open				
Retail				
Lobby, Access Way				
Office				
Finished Divided				
Dinning/Lounge				
Office				
Add for air conditioning and sprinkler.				

Penthouses

Per square foot

ELEVATORS AND STAIRWELLS

	Area			
	50	75	100	150
Metal or Light Wood Frame				
Concrete Block or Equal				
Brick or Equal				

MECHANICAL ROOMS

	Area									
	200	400	600	800	1000	1200	1400	1600	1800	2000
Metal or Light Wood Frame										
Concrete Block or Equal										
Brick or Equal										

NOTE: Price larger structures off of the GCI utility/storage upper floor model.

Mall Concourse Areas

Per square foot.

Costs include paving, ramps, stairs, lighting and typical permanent focal elements, and architectural treatment, such as built-in seating, planters, etc.

OPEN MALL

Open air pedestrian concourse areas, generally referred to as an arcade or courtyard.

COVERED MALL

Covered common areas, consisting of roof cover and open entrance areas. Minimal protection from weather conditions. Typical roof finishes include mansards or canopies. Apply costs to covered area only.

ENCLOSED MALL

Enclosed common concourse areas, completely climatized typical of modern shopping malls where concourse area is bordered on all sides by shops and stores.

Per S. F., average quality construction.

Type	Construction	Rate	
Open			
Covered	Wood Frame Steel Frame Reinforced Concrete F.P. Steel Frame		
Enclosed	Wood Frame Steel Frame Reinforced Concrete F.P. Steel Frame	First	Upper

***Additive for walls**

Price basements from appropriate model in Schedule A. Adjust for quality grade from Schedule F.

NOTE: That the above rates are based on a zero (0) P/A ratio, add for walls by applying the additive rate to the subject P/A ratio, and adjusting the result to account for the percentage of walls priced with the shop enclosures. For example, a "T" shaped concourse area 60' x 200' and 60' x 100' x 20' high with shops 16' high would have a perimeter of 720 L/F and a P/A ratio of 4 (720 L/F / 18,000 SF) with 180 L/F of walls full height and 540 L/F clerestory walls 4' high. This amounts to an average of 40% wall coverage (.25 x 100% + .75 x 20%). The additive for walls would therefore be calculated as 4 x the additive rate x 40%.

SCHEDULE E (continued)**GC Special Features****Banking Features**

Cost per square foot of floor area, based on an average 8' ceiling height, exclusive of floor and doors but including

lighting, ventilation, and interior finish.

Type	Low Cost	Average	Good
Money Vault			
Record Storage			

Add for money vault doors (thickness of steel plating w/o locking mechanism)

Thickness	Rectangular	Circular
2"		
3"		
4"		
6"		
8"		
10"		
12"		
14"		
16"		

Add for record storage vault doors

1/2	hour fire rating
1	hour fire rating
2	hour fire rating
3	hour fire rating
4	hour fire rating
6	hour fire rating

DRIVE-IN TELLER BOOTHS

Per square foot including finish, lighting, heating, air conditioning (average quality construction) add for drive-in windows, adjust for quality grade from Schedule F.

Wall Hgt.	P/A Ratio								
	35.0	40.0	45.0	50.0	55.0	60.0	65.0	70.0	+/-
8'									
9'									
10'									

Add per canopy, per square foot

Atriums

Typical of those found in contemporary office buildings, hotels and high rise apartments

Equivalent No. Stories	Perimeter Area Ratio							
	0	1	2	3	4	5	6	+1
12' 1								
22' 2								
32' 3								
42' 4								
52' 5								
62' 6								
72' 7								
82' 8								

Add per add'l floor

Per square foot for average quality structural, glazed and fireproofed steel frame construction, adjust for variations in quality grade from Schedule F. It should be noted, however, that typical atrium construction is characterized by good quality materials, workmanship and features. Sprinkler system is priced from Group 4 of the sprinkler schedule. Air conditioning in atrium areas is considered overflow from the main structure and no separate square foot pricing is required to adjust the atrium value.

NOTE: The zero (0) perimeter-to-area ratio is applicable to those areas that have no perimeter walls and therefore must not include an allowance for walls in the square foot rate. These areas are typically found in high rise atriums where structural walls forming the perimeter of concourse shops, offices, hotel units and other such occupancies should be valued as part of that space by applying the appropriate model rather than part of the atrium proper.

Drive-up/walk-up teller windows, each
Vision window only, per station
Night depositories, each

Autotellers

Complete with receptacle box, pneumatic tube, and intercom, each

Tellervues

Complete with receptacle box, pneumatic tube, 2-way screen and intercom, each

NOTE: The pneumatic tube described above refers to in-ground permanent type construction.

ATM Enclosures, per square foot, average quality

# of ATM	w/o Lobby	w/Lobby
1		
2		

Add for canopy, per square foot

Adjust for quality grade from Schedule F.

SCHEDULE E (continued)**GC Special Features****Health/Recreational Club Facilities****SAUNA BATHS**

Per item including heater and controls

6 x 4 x 7' high

6 x 5 x 7' high

6 x 6 x 7' high

6 x 9 x 7' high

8 x 8 x 7' high

8 x 10 x 7' high

8 x 12 x 7' high

10 x 12 x 7' high

STEAM BATHS

Add 20% to sauna bath costs.

WHIRLPOOLS (JACUZZI)

For apartments, motels, health clubs and offices with employee health facilities.

Number of persons	Concrete	Fiberglass
4		
6		
8		
10		

Indoor swimming pools, see commercial swimming pool schedule.

Marquees

Per square foot of horizontal area

	Wood	Steel
	Frame	Frame
Low Cost Installation		
Average Installation		
Good Installation, Elaborate Décor		
High Cost Installation, Lavish Décor		

Conveying Systems**PASSENGER ELEVATORS**

Price per item (in hundreds of dollars)

Electric (passenger operated) geared, variable voltage control.

FPM	Capacity (100 lb)					
	15	20	25	30	40	50
100						
150						
200						
250						
300						
350						
400						
Add per stop						

For manual operated doors, deduct ten percent (10%) of total.

Electric (completely automatic, group controlled) gearless, hi speed, hi rise.

FPM	Capacity (100 lb)					
	20	25	30	35	40	50
300						
400						
500						
600						
700						
800						
1000						
1200						
1400						
Add per stop						

Add per express floor 1810

With openings, use cost per stop from table.

For attended, use eighty-five percent (85%) of total cost.

Hydraulic passenger (power doors)

FPM	Capacity (100 lb)					
	15	20	25	30	40	50
50						
75						
100						
125						
150						
200						
Add per stop						

For manual operated doors, deduct ten percent (10%) of total.

Electric (residential type)

20 FPM 350 lb capacity, 2-stops

500 lb capacity, 2-stops

Add per additional stop

Incline lifts

Single passenger, 20' travel

Two - passenger, 20' travel

+/-1' travel

SCHEDULE E
(continued)
GC Special Features

Conveying Systems (continued)

FREIGHT ELEVATORS

Per item (in hundreds of dollars)

Hydraulic, push button operation

FPM	Capacity (100 lb)									
	20	30	40	50	60	80	100	120	150	200
50										
100										
125										
150										

Add per stop for doors

Manual

Power

Electric, variable voltage control, push button operation

FPM	Capacity (100 lb)									
	20	30	40	50	60	80	100	120	150	200
100										
200										
300										
400										

Add per stop for doors

Manual

Power

Manual controls-deduct ten percent (10%) from base cost and use manual door cost for stops.

REAR DOORS

add to either the passenger or the freight elevators listed above:

Manual first stop

Additional stop

Power first stop

Additional stop

SIDEWALK ELEVATORS (electric or hydraulic)

One floor, 2000-3000 lb capacity

MOVING

WALKS

Per L/F at 2% gradient

Length (Ft)	Width		
	36"	48"	54"
100			
300			
500			
750			
1000			
1400			
1800			

ESCALATORS

Per moving stairway (in hundreds of dollars)

32" Width		40" Width	
Rise in Feet	Cost	Rise in Feet	
		Feet	Cost
10		10	
14		14	
18		18	
22		22	
25		25	

For variations in gradients (percentage of rise per linear foot of run) add seven tenths percent (.7%) to the base rate for each additional percent of rise. For

example, the base rate for a one hundred feet (100') walk with a rise of fifteen feet (15') (fifteen percent (15%)) would be increased by nine and one-tenth percent (9.1%) (15 - 2 x .7%); the rate for a one hundred fifty feet (150') walk with a rise of fifteen feet (15') (ten percent (10%)) would increase five and six-tenths percent (5.6%) (10 - 2 x .7%).

SCHEDULE E (continued)**GC Special Features****Boilers - Gas and Light Oil Fired**

Costs are for industrial type package boilers including pumps, controls and gauges. Costs are for rated horsepower. Boiler output may also be rated in terms of B.T.U. per hour, or pounds of steam per hour at two hundred twelve degrees Fahrenheit (212 F).

1hp = 33,500 BTU per hour
 = 139 square feet of steam radiation
 = 223 square feet of water radiated
 = 34.5 pounds of steam per hour
 1 lb. steam per hour = 970 BTU per hour
 1 sq.ft. of equivalent steam radiation=240 BTU per hour
 1 sq.ft. of equivalent water radiation=150 BTU per hour

Low pressure, fifteen (15) pounds steam, thirty (30) pounds water.

Rated Horsepower	Fire Tube	Scotch Marine	Water Tube
4			
6			
10			
15			
20			
30			
40			
50			
75			
100			
150			
200			
300			
400			
500			
600			

High Pressure

125 pounds water, factor above

150 pounds steam, factor above

Cold Storage Facilities

To estimate total cost of a cold storage plant, determine cost of basic

building, then add for insulation and doors. Add for enclosure wall from unit cost tables.

INSULATION

Per square foot of surface area

Insulation	Cork	Fiberglass	Foamglass	Mineral Wood Batts	Urethane
Thickness	Board	Styrene	Board	Board	
1"					
2"					
4"					
6"					
8"					
10"					

COLD STORAGE DOORS

Per square foot of surface area

	To 15 Sq. Ft.	16-25 Sq. Ft.	26-40 Sq. Ft.	Over 40 Sq. Ft.
Thickness				
4"				
6"				
8"				

Sliding doors

Single add 25%

Double add 45%

SCHEDULE E (continued)

GC Special Features

Dock Facilities

Per square foot

LOADING DOCKS

Concrete on fill

	Height	Perimeter Area Ratio				
		5	10	15	20	30
Concrete Grade Walls	3'6"					
	+/- 1'					
Concrete Block Grade Walls	3'6"					
	+/- 1'					

A loading dock has either poured concrete or concrete block perimeter grade walls built on 12" x 18" strip footings with approximately 3'6" of the wall above grade. Many loading docks are 3 - sided additions to existing structures, so calculating the perimeter for the perimeter-to-area ratio represents only the length of the three (3) sides.

DEPRESSED TRUCK AND TRACK AREAS (INSIDE)

Concrete Grade Walls

3'6" Deep , per linear foot

+/- 1' Deep

Concrete Block Grade Walls

3'6" Deep , per linear foot

+/- 1' Deep

Add per cubic foot of depressed area for excavation

Deduct for earth floor, per square foot

Deduct for asphalt paving, per square foot

A depressed truck or track area occurs within the interior of a

building. For example, a company builds a building at the surrounding grade level terrain and then excavates an area that is 3' 6" lower depression within that building to accommodate the movement of goods by either truck trailers or railroad cars. The square footage of this lower area is a depressed truck or track area.

Canopies

INDUSTRIAL DOCK TYPE

Per square foot

Basic, corrugated metal or composition,
wood or steel deck and framing,
without soffit or lighting

to

Add for soffit and lighting

COMMERCIAL TYPE

Per square foot including lighting and soffit

Low cost, unfinished soffit

Average, finished soffit

Good, finished soffit, lighting

High cost, finished soffit, lighting

to

NOTE: Refer to the residential schedule for patios, porches, porticos,
wood decks, balconies, and other residential type features.

STRUCTURAL DOCKS

Wood Floor

Light timber or steel supports

Heavy timber or steel supports

Concrete Floor

Light steel or concrete supports

Heavy steel or concrete supports

Add for canopies from below.

A structural dock has either steel or concrete piers inserted into the ground that support the weight associated with a dock.

The dock itself is built with either a steel or wood structural frame and capped with a wood or concrete floor.

TRUCK WELLS AND RAMPS

Concrete paving, per square foot (incl. fill or excav)

Asphalt paving, per square foot (incl. fill or excav)

Concrete grade walls, per linear foot

0' to 3'6" deep or rise

+/- 1' deep or rise

Concrete Block Grade

Walls

0' to 3'6" deep or rise

+/- 1' deep or rise

A ramp is an incline that starts at ground level and slopes or rises upward to a specific point. A truckwell is an incline that begins at ground level and slopes or falls downward to a specific level.

In both instances, side walls are constructed of either poured concrete or concrete block to hold in or hold out dirt or fill materials.

Appendix G

Commercial and Industrial Cost Schedules

SCHEDULE G

Yard Improvements

Fencing

Per linear foot including normal walk-in gates

	Height						
	4'	6'	7'	8'	9'	10'	12'
Galvanize Chainlink							
7 Gauge							
9 Gauge							
Aluminum							
Iron							
Modular steel							
Add for top rail							
Add for 3 strands of barbed wire							
Add for service gates, per square foot					to		
Deduct for large installations							
1-3000 linear foot						-10%	
3-6000 linear foot						-15%	
Over						-20%	

WOOD FENCE

Per linear foot

Basket weave	
5' high	
6' high	
Plank	
5' high	
6' high	
Split Redwood	
5' high	
6' high	

Masonry Walls

Per linear foot

	6'	+/-1'
4" Concrete Block, painted		
6" Concrete Block, painted		
8" Concrete Block, painted		
4" Solar Screening Block		
6" x 6"		
8" x 8"		
12" x 12"		
8" Common Brick		
12" Common Brick		
4" Face Brick		
8" Face Brick, 2 Sides		
12" Face Brick, 2 Sides		
4" Concrete		
6" Concrete		
8" Concrete		

This schedule may be applicable to agricultural fertilizer containment walls as well.

Paving

Per square foot

ASPHALT

2" on 5" base
Under 20,000 square feet
20,000-50,000 square feet
Over 50,000 square feet
Add for sand finish course, 3/4" thick
Add for gravel surfacing
Add or deduct per 3" base
Heavy duty or industrial work areas

CONCRETE

3" on 4" base
4" on 4" base
5" on 4" base
6" on 4" base
8" on 4" base
12" on 4" base
Add or deduct per 2" of base
Heavy duty roadways or industrial work areas

MACADAM PENETRATION

4" base
6" base
8" base

CRUSHED STONE PAVING

3/4", delivered
3" deep
6" deep

NOTE: All paving prices, including service station and fast food restaurants, should be derived from the above schedules.

Guardrails

Per linear foot
Metal guard rail, pipe or posts
Barriers posts or poles

Railroad Siding

Per linear foot, includes rails, wood ties and ballast

Weight	Cost	Add for Switch & Turnout
of Rail		
40#		
60#		
80#		
100#		
115#		
130#		

Add per linear foot of trestles

Single track
Double track

Add per linear foot of steel ties embedded in concrete

SCHEDULE G (continued)**Yard Improvements****Retaining Walls**

Per linear foot including excavation and backfill, to be considered only if they add value as an improvement over and above the curing contribution considered in the site valuation.

PLAIN CONCRETE, GRAVITY TYPE, NO REINFORCING

	6'	8'	10'
Level Backfill			
Sloping Surcharge (33Deg)			

REINFORCED, CANTILEVER TYPE

	6'	8'	10'	20'
Sloping Surcharge (33Deg)				
500 Lb. Per LF. Surcharge				

CONCRETE CRIBBING

Per square foot of face including excavation and backfill

	Open Face	Closed Face
12' High		

STEEL BIN TYPE

Per square foot, based on 10' wide section

Height	Depth	Cost
4'	5'6"	
8'	5'6"	
10'	7'6"	
12'	7'6"	
16'	7'6"	
16'	10'	
20'	10'	
20'	12'	
24'	12'	
24'	14'	
28'	14'	

Commercial Docking Facilities**SMALL BOAT MARINA**

Typical installation, including ramps, anchor piers, utilities, lockers, etc.:

Range (per slip) to

Typical wood deck on posts & piling, per square foot

Light construction

Medium construction

Heavy construction

Heavy concrete deck on piling for major shipping

MOORING CLUSTERS AND CELLS

	20'	30'	40'
Cluster of 3 Wood Piles			
Cluster of 5 Wood Piles			

Bridges

Typical costs per square foot of deck, including erection foundation

PEDESTRIAN

	Width	Span	Costs
Precast Concrete	8'	60'	
	8'	100'	
	8'	120'	
	8'	150'	
Steel, Trussed or Arched	8'	40'	
	8'	50'	
	8'	60'	
	8'	80'	
	8'	100'	
	8'	120'	
	8'	150'	
	8'	160'	
	10'	80'	
	10'	120'	
	10'	150'	
	10'	200'	
Wood, Laminated type		80'	
		130'	

HIGHWAY

	Low Cost	Median	High Cost
Concrete			
Steel			

SKYWAY

	Low Cost	Median	High Cost
Enclosed Walkway			

CELLS, STEEL PILING, FILLED AND CAPPED
Per each

	20'	30'	40'
3' Square			
4' Square			
6' Square			
8' Square			
4' Diameter			
6' Diameter			
8' Diameter			
12' Diameter			
20' Diameter			

SCHEDULE G (continued)**Yard Improvements****Tanks**

1 Barrel of oil = 42.0 gallons

1 Barrel of water = 31.5 gallons

1 Gallon of water = 8.34 pounds

1 Gallon of water = .1337 cubic feet

Capacity of cylindrical tanks or reservoirs (per foot of depth or height).

Diameter (Feet)	U.S. Gal	Barrels (42 gal)	Diameter (Feet)	U.S. Gal	Barrels (42 gal)
1'0"	5.87	0.1	27'	4,283.00	102.0
1'6"	13.22	0.3	28'	4,606.20	109.7
2'0"	23.50	0.6	29'	4,941.00	117.6
2'6"	36.72	0.9	30'	5,287.70	125.8
3'0"	52.87	1.3	31'	5,645.70	134.4
3'6"	71.97	1.7	32'	6,016.20	143.2
4'0"	94.00	2.2	33'	6,398.10	152.3
4'6"	118.97	2.8	34'	6,790.70	161.6
5'0"	146.88	3.5	35'	7,196.00	171.3
5'6"	177.72	4.2	36'	7,613.30	181.3
6'0"	211.51	5.0	37'	8,041.90	191.5
6'6"	248.23	5.9	38'	8,482.40	202.0
7'0"	287.88	6.8	39'	8,934.90	212.7
7'6"	330.48	8.0	40'	9,398.70	223.8
8'0"	376.01	9.0	41'	9,875.80	235.1
8'6"	424.48	10.1	42'	10,362.00	246.7
9'0"	475.89	11.3	43'	10,861.60	258.6
9'6"	530.24	12.6	44'	11,374.00	270.8
10'	587.48	14.0	45'	11,895.30	283.2
11'	710.90	16.9	46'	12,430.10	296.0
12'	846.03	20.2	47'	12,976.10	309.0
13'	992.91	23.7	48'	13,534.80	322.3
14'	1151.50	27.4	49'	14,104.00	335.8
15'	1321.90	31.5	50'	14,685.00	349.0
16'	1504.10	35.8	60'	21,149.30	503.6
17'	1697.90	40.4	70'	28,768.50	685.5
18'	1903.60	45.3	80'	37,598.70	895.3
19'	2120.90	50.5	90'	47,585.90	1,133.1
20'	2350.10	56.0	100'	58,748.00	1,339.0
21'	2591.00	61.7	120'	84,597.10	2,014.5
22'	2843.60	67.7	140'	115,146.10	2,742.0
23'	3108.00	74.0	160'	150,394.90	3,581.4
24'	3384.10	80.6	180'	190,343.50	4,532.7
25'	3672.00	87.4	200'	234,992.00	5,596.0
26'	3971.60	94.6	220'	284,340.30	6,771.2

Capacity in barrels (oil) = D to power of 2 x .1399 x height
(diameter and height in feet)Capacity in gallons = D to power of 2 x 5.8748 x height
(diameter and height in feet)**Oil Storage****BOLTED STEEL TYPE**

Standard A. P. I. tanks. Costs include roof deck and supports, sand and gravel foundation with retaining ring, painting and typical basic fittings.

Capacity (Barrels)	Size Dia x Hgt	Cost
100	9' x 8'	
200	9' x 16'	
300	9' x 24'	
400	9' x 32'	
500	16' x 16'	
750	16' x 24'	
1000	22' x 16'	
1500	22' x 24'	
2000	30' x 16'	
3000	30' x 24'	
4000	39' x 16'	
5000	39' x 24'	
7500	39' x 36'	
10000	55' x 24'	
15000	55' x 36'	

WELDED STEEL TYPE

Costs include foundations, cone roofs with support outside ladder, steel right curb.

Capacity (Barrels)	Size Dia x Hgt	Cost
2,000	30' x 16'	
3,000	30' x 24'	
4,000	30' x 32'	
5,000	38' x 24'	
7,500	38' x 36'	
10,000	55' x 24'	
15,000	55' x 36'	
20,000	60' x 40'	
25,000	60' x 50'	
30,000	80' x 34'	
40,000	80' x 45'	
45,000	90' x 40'	
50,000	90' x 44'	
75,000	120' x 36'	
100,000	140' x 37'	
125,000	160' x 35'	
150,000	180' x 33'	
200,000	200' x 36'	
250,000	220' x 36'	
300,000	240' x 37'	
350,000	260' x 37'	
400,000	260' x 42'	
500,000	280' x 46'	

Add for pontoon floating roof
per foot of diameter toAdd for double deck roof
per foot of diameter to

SCHEDULE G (continued)**Yard Improvements****Elevated Steel Tanks**

Per item including foundation, riser pipe, frost case, ladder and walkway, completely installed.

Capacity (Gallons)	Cost (in \$1000) for Tower Heights			
	50'	75'	100'	150'
15,000				
20,000				
25,000				
30,000				
40,000				
50,000				
60,000				
75,000				
100,000				
125,000				
150,000				
200,000				
250,000				
300,000				
400,000				
500,000				
750,000				
1,000,000				
1,500,000				
2,000,000				
Factor*	1.15	1.15	1.15	1.20

*For high stress hurricane and earthquake areas

Welded Steel Pressure

Costs include horizontal installation on legs or saddle pads including normal fittings but not foundations or base plates.

Capacity (Gallons)	Size Dia x Hgt	Cost
125	2' x 6'	
250	2'6" x 9'	
500	3'6" x 8'	
1000	3'6" x 16'	
1500	5' x 11'	
2000	5' x 15'	
2500	5' x 19'	
3000	5' x 22'	
4000	5' x 29'	
5000	5' x 36'	
7500	6' x 37'	
10000	6' x 50'	
12500	6' x 61'	
15000	7'6" x 50'	
20000	7'6" x 65'	
25000	9'6" x 51'	
30000	11' x 47'	
35000	11' x 52'	
40000	11' x 57'	
45000	11' x 63'	
60000	11' x 90'	
90000	11' x 133'	

Towers

Per item of painted towers for flat bottom tanks, including added cost of erection of tank above ground, footings, pipe to ground and balcony.

Capacity (Gallons)	12'	Tower Height			
		25'	50'	75'	100'
1,000					
1,500					
2,000					
3,000					
5,000					
10,000					
20,000					
30,000					
40,000					
50,000					
75,000					

Bulkhead Piling

Sea walls, cost per linear foot where typically installed, 10' - 14' depth for small residential jobs. For large commercial projects, costs may be 50% lower.

Creosoted wood, 8" to 12" including tiebacks

Concrete, precast, 5" to 6" including ties and piling

Rubble stone, 3' including 1' of bedding

Earth Dikes

Per cubic foot

Appendix G

Commercial and Industrial Cost Schedules

SCHEDULE G (continued) Yard Improvements

Wood Water Storage

Per item, redwood or fir.

	Capacity	Size	Tank	Flat	Conical	Chime	Wood	Steel
	(Gallons)	(Dia x Hgt)	Cost	Cover	Cover	Joists	Ladder	Ladder
	1,000	6 x 6						
	1,500	7 x 7						
	2,000	8 x 6						
	3,000	8 x 8						
	4,000	9 x 9						
		11 x						
	5,000	8						
		12 x						
	7,500	10						
		14 x						
	10,000	10						
		14 x						
	15,000	14						
		16 x						
	20,000	14						
		18 x						
	30,000	16						
		22 x						
	50,000	18						
		26 x						
	75,000	20						
		30 x						
	100,000	20						
		37 x						
	150,000	20						
		43 x						
	200,000	20						

Add 33% for cypress tanks.

Add tower cost for elevated tanks.

Add for concrete slab foundations, per cubic foot

to

Add cover, joists, and ladders to basic tank cost as necessary.

Standpipes and Surface Reservoirs

Cost includes foundation, roof, ladders and typical accessories.

WELDED STEEL STANDPIPE - (Height
exceeds diameter)

Capacity (Gallons)	Cost	Capacity (Gallons)	Cost	Capacity (Gallons)	Cost
10,000		200,000		2,000,000	
20,000		250,000		2,500,000	
30,000		300,000		3,000,000	
50,000		400,000		4,000,000	
75,000		500,000		5,000,000	
100,000		750,000		6,000,000	
125,000		1,000,000		7,500,000	
150,000		1,500,000		10,000,000	

CONCRETE WATER TANKS - (Surface
reservoir)

Capacity (Gallons)	Cost	Capacity (Gallons)	Cost	Capacity (Gallons)	Cost
10,000		200,000		2,000,000	
20,000		250,000		2,500,000	
30,000		300,000		3,000,000	
50,000		400,000		4,000,000	
75,000		500,000		5,000,000	
100,000		750,000		6,000,000	
125,000		1,000,000		7,500,000	
150,000		1,500,000		10,000,000	

Reservoirs-typical costs of cut and fill reservoirs with concrete or asphalt
linings and wood roof structures, per unit of rated capacity
per gallon or per acre foot.

SCHEDULE G (continued)
Yard Improvements
Dry Storage Bins

Typical cost per item for bolted steel industrial type bins
(to 55# per cubic foot), installed complete.

CYLINDRICAL TYPE, including foundation and floor slab

Diameter	24'	32'	40'	Height	48'	56'	64'	72'	80'	88'
Diameter										
12'										
15'										
18'										
21'										
26'										
32'										

HOPPER TYPE, including structural supports and footings

Diameter	16'	24'	32'	Height	40'	48'	56'
9'							
12'							
15'							
18'							
21'							

Factors for

80#			
Cylindrical	1.05	Hopper	1.10
100#			
Cylindrical	1.15	Hopper	1.15

Bulk Storage Tanks
VERTICAL BULK STORAGE

Costs are for 10 and 12 gauge bolted galvanized tanks,
including sand & gravel foundations, fittings and roof.

Capacity (Gallons)	Cost	Capacity (Gallons)	Cost
2,000		15,000	
3,000		20,000	
4,000		30,000	
5,000		40,000	
7,500		50,000	
10,000		60,000	

Add for concrete slab foundations, per SF

HORIZONTAL BULK STORAGE

Costs are for completely installed tanks, including saddles
or legs and fittings.

Capacity (Gallons)	Cost	Capacity (Gallons)	Cost
1,000		7,500	
1,500		10,000	
2,000		12,500	
3,000		15,000	
4,000		20,000	
5,000		25,000	
6,000		30,000	

Fuel Oil Tanks

Per item for underground steel tanks, installed
complete, including excavation and
backfill.

Capacity (Gallons)	Shell	Cost
500	10 GA	
1,000	3/16"	
2,000	3/16"	
3,000	3/16"	
4,000	3/16"	
5,000	1/4"	
7,500	1/4"	
10,000	1/4"	
12,500	5/16"	
15,000	5/16"	
20,000	5/16"	
30,000	3/8"	

SCHEDULE G (continued)
Yard Improvements
Grain Elevators

Cost Per Bushel				
Total	Wood Crib/Metal Clad		Concrete	
Bushel Capacity	Elevator	Annex	(Slip Form Construction) Elevator	Annex
8,000				
10,000				
15,000				
20,000				
25,000				
30,000				
40,000				
50,000				
75,000				
100,000				
150,000				
200,000				
250,000				
300,000				
400,000				
500,000				
750,000				
1,000,000				
Over				

Trench and Bunker Silos

Per square foot

Horizontal Silos

	Ground Floor Area (square feet)					
	2000	3000	4000	5000	6000	8000
Tilt-up concrete panels and precast wall supports, sealed, concrete floor						
Poles and braces, tilt-up concrete panels, concrete floor						
Cantilevered poles, plywood or tongue and groove walls, concrete floor.						

Steel Tanks and Corrugated Metal Bins

Capacity (Bushel)	Bolted or Welded Steel	Corrugated Metal (Per Bin)
15,000		
20,000		
25,000		
30,000		
35,000		
40,000		
50,000		
60,000		
80,000		
100,000		
125,000		
150,000		
175,000		
200,000		
250,000		
300,000		

Horizontal Storage

The following costs are for horizontal or flat storage without loading and/or unloading systems.

Capacity (Bushel)	Cost Per Bushel	
	Wood	Steel
50,000		
75,000		
100,000		
150,000		
200,000		
250,000		
300,000		
400,000		
500,000		
750,000		
1,000,000+		

SCHEDULE G (continued)**Yard Improvements****Brick and Concrete Stacks**

Per item (in thousands of dollars)
including normal foundation, brick lining for
1/3 of the height, ladder and lightning rod.

Height	I.D. Top	Brick	Concrete
75'	4'		
	5'		
	6'		
100'	4'		
	5'		
	6'		
	7'		
125'	8'		
	5'		
	6'		
	7'		
150'	8'		
	9'		
	6'		
	7'		
175'	8'		
	9'		
	10'		
	12'		
200'	8'		
	9'		
	10'		
	12'		
225'	14'		
	8'		
	10'		
	12'		
250'	14'		
	16'		
	10'		
	12'		

Steel Stacks

Per linear foot of height, installed complete
including foundation and painted exterior.

Including foundation and painted exterior:								
Thickness (At Base)	Diameter at Base							
	18"	24"	30"	36"	48"	60"	72"	84"
10 Gauge								
8 Gauge								
1/4" Plate								
3/8" Plate								
1/2" Plate								
Guy Wire (L/F)								
Guy Band (Each)								
Roof Flashing								
Umbrella Top (Each)								

SCHEDULE G (continued) Yard Improvements

Incinerators

STEEL

Costs include scrubber, but do not include chimney.

Pounds per Hour	Cost
50	
100	
200	
400	
600	
1000	
Add for feeder	to

BRICK

Costs include brick work, but do not include chimney or pollution control.

Pounds per Hour	Cost
100	
200	
400	
600	
1000	
2000	
3000	
5000	

For refractory lining, add 200%.

Drive-In Theaters

Costs are broken into major cost items on a per space basis. Some theaters may be mixed in quality requiring substitution from another grade.

	D	C	B	A
Engineering				
Grading				
Paving				
Screens				
Ticket Booth				
Miscellaneous				
Landscaping, etc.				
Cost per car space				

UNIT COSTS

The following costs may be used to either make adjustments to the cost per space pricing or as a build-up method to develop a complete theater cost.

	Low	Average	Good
Screen, per sq. ft. of screen area			
Wood frame on poles			
Wood frame on timbers:			
Plain			
Ornate			
Steel frame:			
Plain			
Ornate			
Concrete, with steel-framed screen enclosure			
Ticket Booths, each			

NOTE: Refer to the 30-year life table for depreciation.

NOTE: All other buildings including projection booths and security fencing should be priced from the appropriate schedule.

Chimneys

BRICK CHIMNEYS

Average cost per foot of height with tile flues, including foundation.

8" square or round flue
12" square or round flue
2-8" square or round flue
10" x 18" rectangle flue
1-8" and 1-12" square flue

METAL CHIMNEYS

Average cost per linear foot for round galvanized metal stacks.

Size	Single Wall	Double Wall	Triple Wall
6"			
8"			
10"			
Add for thru-the-wall installations.		to	
Add for box framed decorative chimney housing per linear foot:			
Wood or stucco			to
Metal			to

SCHEDULE G (continued)

Yard Improvements

Greenhouses

Price per square foot of floor space.

Cost includes foundation, light masonry or frame sill walls, glazed upper walls (6' to 7' overall eaves height), roof ventilation, lighting, and water service.

Cost does not include heating and ventilation systems, special watering or sprinkler systems, and planting benches.

Type and Quality	500	1000	2000	3000	5000	10000	20000	30000	40000	50000	60000	70000	80000
Good aluminum/steel													
Average steel													
Average pipe													
Low cost wood frame													

Add for paved floors and walks

Concrete

Asphalt

Add for maintenance and utility buildings, per square foot

Cheap shed-type

Low cost frame, block or equal

Average cost block or equal

Average cost brick or equal

Good quality brick or equal

INSTITUTIONAL AND CONSERVATORY GREENHOUSES

Apply the following factors to the good aluminum and steel frame prices.

Typical installations	200%
High quality elaborate installation	300%

Car Wash Buildings

DRIVE - THRU CAR WASH (Stationary Type, Exterior - Wash)

Per square foot, average quality, completely installed.

	Good	Avg.	Low Cost
Masonry/Steel			
Porcelain-Steel			
Wood Frame/Stucco			

Cost includes concrete slab, floor drains, basic electrical, lighting and water service and equipment enclosure. Add for restroom fixtures from general commercial schedule.

DO-IT YOURSELF

Per item, completely installed (excluding equipment).

Good quality

2-bay

Each additional bay

Average quality

2-bay

Each additional bay

Low cost

2-bay

Each additional bay

Swimming Pools

Per square foot of pool surface, reinforced concrete construction, including piping & water treating equipment, heaters, boards, ladders.

MOTEL AND APARTMENT COMPLEX TYPE

Square Feet	Cost
1,000-1,200	
1,300-1,500	
1,600-2,200	
2,300-2,500	

SWIM AND COUNTRY CLUB TYPE

Square Feet	Cost
2,500-4,000	
5,000-6,000	
7,000-9,000	
10,000-20,000	
Over	

Add for diving 'L

Irregular shape

Separate whirlpool bath (range)

Add for ceramic tile, per sq. ft. tiled area

Add for concrete apron, per square foot

Add for wading pool, per square foot

Price fencing from appropriate schedule.

Price buildings from appropriate schedule.

LARGE MUNICIPAL POOLS

Complete include bathhouse

Per person capacity

Appendix G

Commercial and Industrial Cost Schedules

SCHEDULE G (continued)

Yard Improvements

Golf Courses

REGULATION PLAY

Costs per hole are given for five (5) quality grades of golf courses, ranging from cheaply built courses to excellent quality courses designed for professional play.

The costs for each grade have been developed to include the following:

1. Architectural fees to include engineering, planning and on-site supervision (ranging from six percent (6%) to ten percent (10%)).
2. Normal site preparation and grading, and follow-up fairway seeding and landscaping.
3. Sprinkler installation to include the water source, pumps, piping and heads.
4. Roadway construction to include base preparation, paving and bridging for service roads and cart paths.
5. Green construction to include seeding and pre-opening maintenance.
6. Tee construction to include seeding and pre-opening maintenance.
7. Bunker construction to include pre-opening maintenance.

GRADE AA

Superior quality course, designed to accommodate professional championship play, eighteen (18) holes on one hundred eighty (180) acres of rolling and laked terrain, seven thousand two hundred (7,200) yards long, rated par seventy two (72) and featuring a completely automatic sprinkler system throughout, ten thousand (10,000) square feet tiled greens, two thousand four hundred (2,400) square feet tees with three (3) tee locations, an average of three (3) bunkers per hole and good quality asphalt paved roadways.

GRADE A

Excellent quality course, designed to accommodate professional championship play, eighteen (18) holes on one hundred sixty (160) acres of rolling and laked terrain, seven thousand two hundred (7,200) yards long, rated par seventy two (72) and featuring a completely automatic sprinkler system throughout, eight thousand (8,000) square feet tiled greens, two thousand one hundred (2,100) square feet tees with two (2) to three (3) tee locations, an average of three (3) bunkers per hole and good quality asphalt paved roadways.

GRADE B

Good quality private club type course, eighteen (18) holes on one hundred thirty (130) acres of rolling terrain, six thousand four hundred (6,400) to six thousand five hundred (6,500) yards long, rated par seventy (70) and featuring an automatic sprinkler system serving the greens and tees, and a manual system on fairways, five thousand (5,000) square feet tiled greens, one thousand eight hundred (1,800) square feet tees with two (2) tee locations, an average of two (2) bunkers per hole, and good quality asphalt paved roadways.

GRADE C

Average quality public and municipal type course, eighteen (18) holes on one hundred ten (110) acres of primarily flat terrain, six thousand (6,000) yards long, rated par sixty-seven (67) to seventy (70), featuring a semi-automatic sprinkler system, small tees and greens with few bunkers and average quality asphalt or gravel roads.

GRADE D

Fair quality course, eighteen (18) holes on ninety (90) acres of flat terrain, five thousand four hundred (5,400) yards long, rated par sixty-four (64) to sixty-seventh (67), and featuring a manual sprinkler system, small tees and greens with few bunkers and gravel roadways.

BASE COST PER HOLE

AA Grade
A Grade
B Grade
C Grade
D Grade

NOTE: The costs per hole, and components represent neither the best nor the cheapest quality courses. Costs may be factored upward (ten percent (10%) to fifty percent (50%)) or downward (ten percent (10%) to

fifty percent (50%)) as required.

For hybrid courses (courses exhibiting different qualities of features), it may be necessary to interpolate between

TYPICAL COST-RANGE FOR COMPONENTS

Tees
Bunkers
Greens
Flat
Elevated
Lakes
Asphalt lined
Plastic & sand
Sprinkler systems
Manual
Automatic
Site preparation and landscaping

SHORT PLAY

Cost range per hole, excluding structures and parking

Executive courses, 18 holes on 50 to 60 acres, 4,600 yards long including sprinkler system, excluding lighting

Par 3 course, 18 holes on 30 to 40 acres, 2,800 to 3,000 yards long, including sprinkler system, excluding lighting

Pitch and putt, 9 holes on 10 to 15 acres, 1,400 to 1,500 yards long including sprinkler system, excluding lighting

GOLF COURSE LAND VALUES

The reproduction cost for a regulation or short play course improvement includes a cost for the land of \$ _____ without a consideration of productivity factors. The formula is used to determine the true tax value of

STEP ONE: Determine the number of holes on the course.

STEP TWO: Multiply the number of determining factors by ONE by the base cost per hole

STEP THREE: Determine the amount of acreage on the parcel devoted to the golf course (greens, fairways, roughs, etc.).

STEP FOUR: Multiply the amount determined in STEP THREE by \$ _____

STEP FIVE: From the amount determined under STEP TWO, subtract the amount determined under

STEP SIX: To the amount determined in STEP FIVE, apply the appropriate depreciation percentage

The true tax value of the golf course land is \$ _____

SCHEDULE G (continued)**Yard Improvements****Miniature Golf Courses**

Typical cost per hole including plumbing but excluding building structures, fencing, and parking areas.

Excellent installation, professionally designed

Good installation

Average quality installation

Low cost installation

Golf Driving Range

Typical cost per station, including station paving, normal fencing, but excluding building structures and parking areas

Excellent installation

Good installation

Average installation

Low cost installation

Artificial Turf

Per square foot, for football and baseball, including pad to

Bleachers

Typical cost

	Seats	Per S.F.*	Per Seat
Portable, steel frame, wood benches, outdoor	Up to 800 Over 800		
Permanent, wood frame and benches, outdoor	Up to 1000 1000 to 2000 Over 2000		
Permanent, steel frame fiberglass benches, outdoor	Up to 1000 1000 to 2000 Over 2000		

Add for roofed area to per S.F.

OUTDOOR STANDS OVER DRESSING ROOMS

Including finish and plumbing.

	Per S.F.*	Per Seat
Average wood seats, steel frame		
Average steel seats, concrete or masonry walls		
Average concrete seats, concrete or masonry walls		
Add for roofed area; per sq. ft.	to	per S.F.

*Square foot of projected horizontal area

Running Tracks

Per square foot

Gravel and cinder on stone base

Resilient paving, rubber cork base

Plain

Colored

Rubberized asphalt, colored

Artificial resilient material, asphalt base

Typical cost for gravel track with minimal requirements for 440 yard oval 21' wide, 24' x 750' long straight-away, including high jump, pole vault, broad jump, discus and hammer throw and shot-put facilities to

Typical cost to include football field to

Sports Stadium

Typical cost range per seating capacity (baseball capacity) for all structural improvements in-place.

Older type parks to

Modern type parks to

Enclosed, roofed stadiums, artificial turf, scoreboard to

Tennis Courts

Typical cost range per court, 60 x 120 including fencing.

	Standard	D
Clay surfaced court		
Add per additional court		
Asphalt surfaced court		
Add per additional court		
Sod surfaced court		
Add per additional court		
Add for lighting		
Per additional court		

Paddle Tennis Courts

Typical costs range per set, 54' x 55' deck with two 18' x 39' playing courts, installed complete including deck and supports, accessories.

	Standard	D
Bituminous concrete deck, colored		
Treated wood deck		
Insulated steel deck		

Shuffle Board Courts

Typical cost per court, 6' x 52' concrete to

Schedule G (Continued)

Yard Improvement

Mobile Home Parks

General Specifications

EXCELLENT "A"

The excellent mobile home park provides deluxe accommodations for the largest single and double wide homes. It will have complete and various recreational facilities of top quality and feature generous amounts of landscaping, sprinkler systems, etc.

GOOD 'B'

The typical good park is one catering to the larger, permanent mobile home. It will accommodate a limited quantity of double wides and will feature complete recreational facilities. All utilities are underground and may include cable TV systems.

AVERAGE 'C'

This type of park is built more for permanent occupancy and will have spaces to accommodate the manufactured home up to sixty (60) feet but few if, any, double wide versions. They will have utility buildings, office and possibly recreational facilities,

electrical costs include underground service and telephone to most sites as well as street lighting.

LOW COST "D"

Developed for transient or semi-permanent occupancy, these parks usually have car-drawn trailers up to forty-five feet (45) long. They feature limited planning and facilities and have sewer or septic system hook-ups and water, but not gas hook-ups, except to utility buildings and electrical service is overhead.

CHEAP 'E'

Typical of sites developed in outlying rural areas where there is minimal or no building code enforcement. There will be close spacing and few facilities and are designed for smaller mobile homes. They feature water service to common hydrants with no trailer hook-ups.

COST PER SITE

	Quality Grade	A	B	C	D	
*Site Size (Sq. Ft.)	2700	5100	2000	4700	1700	3700
**Cost Range (\$)	--	--	--	--	--	--
Components of above cost						
Engineering	--	--	--	--	--	--
Site Grading	--	--	--	--	--	--
Street Paving	--	--	--	--	--	--
Patios and Walks	--	--	--	--	--	--
Sewers	--	--	--	--	--	--
Water	--	--	--	--	--	--
Electric	--	--	--	--	--	--
Gas	--	--	--	--	--	--
Misc. (landscaping, recreation, facilities, etc.)	--	--	--	--	--	--
Total	--	--	--	--	--	--

*Site size refers to the average of the actual site on which the mobile home is situated, exclusive of access drives, recreation areas, and service areas.

**The cost range per site includes all of the components shown above, naturally, if the sites being appraised do not include all of the above components, proper deductions should be made according to the above schedule.

NOTE: In appraising mobile home parks through the use of this schedule, complete the following steps:

1. Enter the number of sites and proper rate in the SUMMARY OF IMPROVEMENTS section and calculate reproduction cost.
2. Apply proper depreciation considering age and condition (use residential guidelines)

3. Appraise other structures (i.e. garages, community rooms, laundry buildings, etc.) from appropriate schedules.

NOTE: This schedule is NOT to be used for recreational vehicle parks.

SCHEDULE G (continued)

Yard Improvements

Riverboat Cost Schedules

For Indiana property tax purposes, the reproduction cost of a riverboat licensed under IC 4-33 shall be computed in accordance with Schedule A or B in this section. Typical cost range per certified capacity for all structural components in-place. Certified capacity is the maximum persons capacity as prescribed by the regulations of the Coast Guard, Department of Transportation. For purpose of this section, certified capacity includes both passengers and crew.

SCHEDULE A

Riverboats licensed in counties contiguous to Lake Michigan:

Certified capacity of 2,000	
More than 2,000, add	per person
Less than 2,000, deduct	per person

Example: A Lake Michigan riverboat has a certified capacity of 3,000 persons. The difference in capacity between the subject and the model is 1,000 people. To calculate the boat's reproduction cost, multiply the capacity difference of 1,000 by the per person cost and add it to the base as follows:

$$\begin{array}{rcl} & \times & = \\ & + & = \end{array}$$

SCHEDULE B

Riverboats licensed in counties contiguous to the Ohio River:

Certified capacity of 2,000	
More than 2,000, add	per person
Less than 2,000, deduct	per person

Example: An Ohio River riverboat has a certified capacity of 1,600 persons. The difference in capacity between the subject and the model is 400 people. To calculate the boat's reproduction cost, multiply the capacity difference of 400 by the per person cost and deduct it from the base as follows: and add it to the base as follows:

$$\begin{array}{rcl} & \times & = \\ & - & = \end{array}$$

Landfill Liners

The following schedule is to be used in assessing line within landfills.

A landfill liner is a series of layers of special earth material plastic that is placed within the landfill cell to retain leachate within the structure and discourage subterranean water from infiltrating the cell. The rates given represent a complete build-up of the liner and can be used as either a system or a component basis depending on the subject landfill.

Once the subject's rate has been determined, multiply the rate by either the number of square feet or the acreage of the cell and calculate a depreciation percentage from the year life expectancy table. Record the true tax value of the value item in the "Summary of Improvements" section of the record card.

The land value for the area underneath the cell should be at the commercial unusable undeveloped rate with a "1 acre" at the primary rate until the cell has been closed. After closure, the entire acreage of the cell is valued at the commercial unusable undeveloped rate.

	Per S.F.	A
Compacted soil barrier (10" to 24")		
Flexible membrane liner (60 mil.)		
Geosynthetic clay liner blanket (30")		
Sand drainage layer (12")		
Total		

Protective cover layer - part of unusable undeveloped

SCHEDULE G (continued)**Yard Improvements****Commercial-Type Solar Heating and Cooling System Base Rates**

For large commercial applications, multiply the system's total collector square feet by the following square feet base rates. To arrive at the system's correct reproduction cost, determine the rate from the schedule below by choosing a rate, listed to the nearest five thousand (5,000) square feet, that is closest to the subject's system total area. Do not interpolate between rates.

Square Footage	Per S.F.
5000 to 10,000	
15,000	
20,000	
25,000	
30,000	
35,000	
40,000	
45,000	
50,000 and over	

Geothermal Heating and Cooling**System Base Rates****HORIZONTAL CLOSED LOOP SYSTEMS**

	HCLSWD	HCLSWOD w/o distribution
System Tonnage	w/distribution	
2 Ton		
2.5 Ton		
3 Ton		
3.5 Ton		
4 Ton		
5 Ton		
6 Ton		

VERTICAL CLOSED LOOP SYSTEMS

	VCLSWD	VCLSWOD w/o distribution
System Tonnage	w/distribution	
2 Ton		
2.5 Ton		
3 Ton		
3.5 Ton		
4 Ton		
5 Ton		
6 Ton		

OPEN DISCHARGE OPEN LOOP SYSTEMS

	ODOLSWD	ODOLSWOD w/o distribution
System Tonnage	w/distribution	
2 Ton		
2.5 Ton		
3 Ton		
3.5 Ton		
4 Ton		
5 Ton		
6 Ton		

RETURN WELL OPEN LOOP SYSTEMS

	RWOLSWD	RWOLSWOD w/o distribution
System Tonnage	w/distribution	
2 Ton		
2.5 Ton		
3 Ton		
3.5 Ton		
4 Ton		
5 Ton		
6 Ton		

SPECIAL USE COMMERCIAL PROPERTY COST SCHEDULES**Fast Food Restaurant Base Costs**

Per square foot, C - Grade quality and design

Area	Cost	Area	Cost
700		2200	
800		2300	
900		2400	
1000		2500	
1100		2600	
1200		2700	
1300		2800	
1400		2900	
1500		3000	
1600		3500	
1700		4000	
1800		4500	
1900		5000	
2000		5500	
2100		6000	

Add for basements per square foot

Area	Unfinished	Finished Open	Finished Divided
200			
400			
600			
800			
1000			
1200			
1400			
1600			
1800			
2000			
2200			
2400			
2600			
2800			
3000			
3200			
3400			
3600			
3800			
4000			

Add for canopies per square foot

Quality Grade and Design Factors

To be applied to the C - Grade prices above.

A		160	A
	-1	150	
	+2	140	
	+1	130	
B		120	B
	-1	115	
	+2	110	
	+1	105	
C		100	C
	-1	95	
	+2	90	
	+1	85	
D		80	D
	-1	70	
	+2	60	
	+1	50	
E		40	E

Paving

Per square foot

See commercial yard paving rates

Detached Canopies

Per square foot

Low cost installation

Average
installation

Good installation

High cost installation, elaborate finish and décor

Note: Solariums should be included in the base area
priced using the appropriate base rate.

SPECIAL USE COMMERCIAL PROPERTY COST SCHEDULES (continued)**Stations with Service Bays**

Per square foot C - Grade quality and design.

Area	Cost	Area	Cost
600		1400	
700		1500	
800		1600	
900		1700	
1000		1800	
1100		2000	
1200		2200	
1300		2400	

NOTE: For drive-thru car wash bays see car wash building schedule.

Stations without Service Bays

Per square foot C - Grade quality and design.

Area	Cost	Area	Cost
150		800	
200		900	
250		1000	
300		1100	
350		1200	
400		1300	
500		1400	
600		1500	
700		1600	

Add for unfinished basements

Area	Cost	Area	Cost
200		1000	
400		1200	
600		1600	
800			

Add for attached canopies, per square foot.
Typical steel frame including soffit and lighting
Typical unfinished wood frame including lighting

Public Restroom Building

Per square foot.

Area	Cost	Area	Cost
125		800	
150		900	
200		1000	
250		1100	
300		1200	
400		1300	
500		1400	
600		1500	
700		1600	

Paving

Per square foot.

See commercial yard paving rates

Quality Grade and Design Factors

To be applied to the C - Grade prices above.

A	160	-1	95
-1	150	+2	90
+2	140	+1	85
+1	130	D	80
B	120	-1	70
-1	115	+2	60
+2	110	+1	50
+1	105	E	40
C	100		

Detached Canopies

Per square foot.

Includes lighting, soffits and supports.

	Steel	Wd, Frame and Sheath
Low Cost Installation		
Average Quality Installation		
Good Quality Installation		
High Cost Elaborate Installation		
Add 25% for round canopy		

Self - Service Cashier Booths

LOW COST

Per square foot

Open style booth,
minimum elect.,
no plumbing

Area	Cost
25	
50	
75	
100	
125	
150	
175	
200	
225	
250	
275	
300	

GOOD (STEEL)

Good security structure
with bullet-proof glass
and 2 plumbing fixtures.

Area	Cost
75	
100	
125	
150	
175	
200	
225	
250	
275	
300	

Add/deduct for plumbing
Add for intercom system

AVERAGE (STEEL)

Per square foot

Typical cashier booth,
good elect.,
no plumbing

Area	Cost
50	
75	
100	
125	
150	
175	
200	
225	
250	
375	
300	

Add 25% for bullet-proof glass.
Add for plumbing.

per fixture.

Location Cost Multipliers

The commercial and industrial cost schedules in this manual are based on the building costs for commercial and industrial structures in the Indianapolis metropolitan area as of March 1, 2011. By applying these cost schedules, the assessing official is attempting to calculate the replacement cost new of a commercial or industrial structure within in his/her jurisdiction. Since construction costs vary from one jurisdiction to another, it shall be necessary to apply Location Cost Multipliers to the costs published in this manual in order to accurately reflect actual costs within his/her jurisdiction.

These Location Cost Multipliers can be determined in one of two ways. The first and most accurate method is for the county assessor to develop a Location Cost Multiplier for his/her respective county. This can be done using techniques such as surveying commercial and industrial contractors to determine actual construction costs or by comparing the cost of commercial and industrial structures built and sold on or about March 1, 2011 to the costs published in this manual. The county assessor may use any acceptable technique of estimating a Location Cost Multiplier and must submit the technique and resultant multiplier to the Department for review and approval prior to its application in the county.

The second method, which is presented as an alternative to the preferred method, is to use the Location Cost Multipliers listed in Table G-1 below. These multipliers have been developed by reviewing comparative cost multipliers for various Indiana localities as published in several national cost services. The use of the Location Cost Multipliers listed in Table G-1 does not require approval of the Department prior to their application in a county.

The Location Cost Multiplier is to be applied to all commercial and industrial improvements, not just the main structure, in order to arrive at replacement cost new. The proper place for applying the Location Cost Multiplier is discussed in Chapters 6, 7 and 8 of this manual.

Table G-1--Location Cost Multipliers by County

COUNTY	MULTIPLIER	COUNTY	MULTIPLIER	COUNTY	MULTIPLIER
Adams		Hendricks		Pike	
Allen		Henry		Porter	
Bartholomew		Howard		Posey	
Benton		Huntington		Pulaski	
Blackford		Jackson		Putnam	
Boone		Jasper		Randolph	
Brown		Jay		Ripley	
Carroll		Jefferson		Rush	
Cass		Jennings		St. Joseph	
Clark		Johnson		Scott	
Clay		Knox		Shelby	
Clinton		Kosciusko		Spencer	
Crawford		LaGrange		Starke	
Daviess		Lake		Steuben	
Dearborn		LaPorte		Sullivan	
Decatur		Lawrence		Switzerland	
Dekalb		Madison		Tippecanoe	
Delaware		Marion		Tipton	
Dubois		Marshall		Union	
Elkhart		Martin		Vanderburgh	
Fayette		Miami		Vermillion	
Floyd		Monroe		Vigo	
Fountain		Montgomery		Wabash	
Franklin		Morgan		Warren	
Fulton		Newton		Warrick	
Gibson		Noble		Washington	
Grant		Ohio		Wayne	
Greene		Orange		Wells	
Hamilton		Owen		White	
Hancock		Parke		Whitley	
Harrison		Perry			

Glossary

The real estate appraisal terms and definitions in this glossary apply throughout the *Real Property Assessment Guidelines*.

actual age	The number of years elapsed since the original construction up to the effective valuation date. See also effective age.
ad valorem tax	A tax based on the value of the property.
addition	An extension or increase in the floor area or height of a building, room, or structure.
agricultural property	The land and improvements devoted to or best adaptable for the production of crops, fruits, timber, and the raising of livestock.
air circulation, forced	A means of providing space conditioning utilizing movement of air through ducts by mechanical means.
air rights	The right to the use of a certain specified space within the boundaries of a parcel of land and above a specified elevation.
air-conditioning system	An air-conditioning system consists of heat exchangers, blowers, filters, supply exhaust, and return-air systems, and includes any apparatus installed in connection therewith.
alligatoring	Many small, hairline type cracks (also known as spider cracks) in concrete, in painted surfaces, or on roll roofing. The condition looks like the scales on the back of an alligator.
amenities	The intangible benefits arising out of ownership of property.
anchor bolt	A bolt used to anchor structural members to concrete or the foundation.
annually assessed mobile home	A mobile home that does not meet either of the following requirements <ul style="list-style-type: none"> ▪ Permanently attached to a foundation or ▪ the owner has surrendered the certificate of title under IC 9-17-6-15.1
apartment hotel	A building designed for non-transient residential use. It is divided into dwelling units similar to an apartment house, but has such hotel accommodations as room furnishings, lounges, public dining room, and maid service.
apartment house	A multiple family residence containing three or more non-transient residential living units, and generally containing a number of common facilities and services.
appraisal	An estimate, usually in written form, of the value of a specifically described property as of a specified date. It may be used synonymously with valuation or appraised value.

appraisal schedule	Any standardized schedule or table used in conjunction with a revaluation program, such as a replacement cost pricing schedule, depreciation table, or land depth table.
appraiser	A person who estimates value or possesses the expertise to execute or direct the execution of an appraisal. In IC 6-1.1-31.7, an appraiser is a professional appraiser or appraisal firm that contracts with a jurisdiction under IC 6-1.1-4 and is certified under rules promulgated by the Department of Local Government Finance.
asphalt shingle	The most common type of roof shingle in this country, made by impregnating mats of fiberglass or organic felt materials such as rags, paper, and wood pulp, with asphalt and covering one surface with mineral granules.
assessed value	An amount equal to 100% of the true tax value of property. Also referred to as assessed valuation.
assessing	The act of valuing a property for the purpose of establishing a tax base.
assessment	The value of taxable property to which the tax rate is to be applied in order to compute the amount of taxes. It may be used synonymously with assessed value, taxable value, true tax value, and tax base.
assessment date	March 1 for all tangible property. In this revision, it means March 1, 2011, and each March 1 until the next general reassessment under IC 6-1.1-4-4.
assessment notice	A written notification to a property owner of the assessed value of certain properties described in the notice. It is mandated by law to be given to each property owner following a revaluation of the property. Also referred to as Form 11.
assessment period	The period of time during which the assessment of all properties within a given assessment district must be completed. It is also the period between tax lien dates.
assessment roll	The official listing of all properties within a given taxing jurisdiction by ownership, description, and location showing the corresponding assessed value for each. Also referred to as tax list, tax book, tax duplicate, and tax roll.
assessor	The administrator charged with the assessment of property for ad valorem taxes.
attached dwelling	A multiple family dwelling in which the dwelling units are separated vertically by means of a common or party wall.
attached garage	A garage that is part of the main structure.
attic	An unfinished or finished portion of a building lying between the highest finished story and the roof, and wholly within the roof framing.

attic space ventilation	Any means of removing hot or stale air from an attic space such as ridge vents, powered or gravity turbines, gable vents, and so forth, in conjunction with eave or soffit vents.
backfill	Loose earth placed outside foundation walls for filling and grading.
base price	A value or unit rate established for a certain specified model, and subject to adjustments to account for variations between that particular model and the subject property under appraisal.
basement	A building story that is wholly or partially below the grade level with either no window openings or a minimum number of small window openings within the perimeter walls.
bay	One of the following: <ul style="list-style-type: none">■ a horizontal area division of a building usually defined as the space between columns or division walls■ an internal recess formed by a wall projecting beyond its general line.
bay window	A window, or group of continuous windows, projecting from the main wall of a building.
beam	A horizontal member of wood, reinforced concrete, steel, or other material used to span the space between posts, columns, girders, or over an opening in a wall. <ul style="list-style-type: none">■ Continuous beam—a beam that has more than two points of support■ Cantilevered beam—a beam that is supported at only one end and is restrained against excessive rotation.■ Simple beam—a beam that is freely supported at both ends, theoretically with no restraint.
bearing wall	A wall designed primarily to withstand vertical pressure in addition to its own weight.
blighted area	A declining area characterized by marked structural deterioration or environmental deficiencies, or both.
brick construction	A type of construction in which the exterior walls are bearing walls made of solid brick or brick and tile masonry.
brick veneer construction	A type of construction in which the exterior walls are one layer brick curtain walls backed by a wood frame.
bridging	The structural member used to give lateral support to the weak plane of a truss, joist, or purlin. It provides sufficient stability to support the design loads, sag channels, or sag rods.
building	Any structure partially or wholly above ground that is designed to afford shelter to persons, animals, or goods.
bungalow	A one-story unit that is somewhat more pretentious than a cottage.

bus company	A company, other than a street railway company, that is principally engaged in the business of transporting persons for hire by bus on regularly scheduled routes in or through two or more jurisdictions of this state.
central business district	The center of the city where the primary commercial, governmental, and recreational activities are concentrated.
central system	Includes property used for heating, air conditioning, ventilation, sanitation, fixed fire protection, lighting, plumbing, or drinking water.
column	A structurally-isolated vertical member that is at least eight to ten times as long as its least lateral dimension and that is designed to carry loads.
common wall	A wall owned by one party, but jointly used by two parties, one or both of whom is entitled to such use under the provisions of a lease or deed.
component part-in-place method	The application of the unit-in-place method to unit groupings or construction components.
conditioned air	Air treated to control its temperature, relative humidity, or quality.
conduit	A tube, pipe, or small artificial tunnel used to enclose wires or pipes or to convey water or other fluids.
construction year	The year of the original construction for a structure.
coping	A special capping at the top of a wall, serving principally as a watershed.
cornice	A projecting element at the top of a wall, serving principally as a decoration or as part of the coping.
cost approach	One of the three approaches to valuation by which an indication of the value of a property is arrived at by estimating the value of the land, the replacement cost new of the improvement, and the amount of depreciation to the improvement. The estimated land value is added to the estimated depreciated value of the improvements to arrive at the estimated property value.
cottage	A one-story or two-story dwelling unit of small size and humble character.
county executive	Refers to the <ul style="list-style-type: none">■ board of commissioners, for a county not having a consolidated city■ mayor of the consolidated city, for a county having a consolidated city.
course	A uniform horizontal layer of brick, stone, terra cotta, shingles, or some other structural material, extending continuously around a building or along a wall.

court	An open space bordered on two or more sides by the walls of a single building, or two or more buildings, and by a lot line or a yard on any side not so bordered.
crawl space	A shallow space between the first tier of flooring and the ground (not a basement).
cubic content	The cubic volume of a building within the outer surface of the exterior walls and roof, and the upper surface of the lowest floor.
curb roof	A roof in that the pitch of the upper part of a sloping side is less than the pitch of the lower part.
curtain wall	A nonbearing wall which is supported by columns, beams, or other structural members. The primary function is to enclose space.
dead load	The weight of all permanent construction, including walls, floors, roofs, ceilings, stairways, and fixed service equipment, plus the net effect of pre-stressing.
decay	One of the three basic types of fungi that attack wood. Hard to determine in the early stages. It becomes very visible in the later stages. The wood might be brownish and crumbly or white and spongy in the advanced stage of the process.
deck	An exterior floor system supported on at least two opposing sides by an adjoining structure and/or posts, piers, or other independent supports.
deed	<p>A written instrument that conveys an interest in real property. The following is a description of three types.</p> <ul style="list-style-type: none">■ A quit claim deed conveys the described interest without warranty of title.■ A trust deed conveys the described interest to a trustee.■ A warranty deed conveys the described interest with the provisions that the freehold is guaranteed by the grantor, his or her heirs, or successors.
depreciation	<p>Loss in value from all causes. It can be further classified as follows:</p> <ul style="list-style-type: none">■ physical, the loss of value caused by physical deterioration■ functional obsolescence, the loss of value from an internal inutility■ external obsolescence, the loss of value from an externality
depreciation allowance	A loss of value expressed in terms of a percentage of cost new.
depreciation date	March 1, 2011.
depth factor	A multiplier applied to a unit land value to adjust the value of a particular lot to account for the depth of the lot.
depth table	A multiplier to a unit land value to adjust the value of a particular lot to account for the depth of the lot as compared to the standard lot.

design factor	A factor or multiplier applied to a computed replacement cost as an adjustment to account for cost variations attributable to the particular design of the subject property which were not accounted for in the particular pricing schedule used.
detached garage	A garage built as a separate building or structure, and not part of the main structure.
deterioration	An impairment of structural condition evidenced by the wear and tear caused by physical use and the action of the elements. Also referred to as physical depreciation.
distributable property	<p>Property owned or used by a public utility company that is not locally assessed real property or locally assessed personal property. Distributable property is that property used to furnish the public utility service.</p> <p>The right-of-way of a public utility company is distributable property. It may consist of the public utility company's transportation system, production plant, transmission system, and/or distribution system. The Department of Local Government Finance distributes to the appropriate taxing districts the assessed value of the public utility company's distributable property.</p>
dormer	<p>One of the following:</p> <ul style="list-style-type: none">■ A relatively small structure projecting from a sloping roof.■ A window set upright in the face of such a structure.
double dwelling	A two-family dwelling in which the dwelling units are separated by means of a common or party wall.
double joists	Two joists nailed, glued, or otherwise bonded together and used to support a heavy load.
drywall	Interior wall construction consisting of plasterboard, wood paneling, or plywood nailed directly to the studs without application of plaster.
duplex dwelling	A two-family dwelling in which the two dwelling units are on separate floors and usually a private street entrance for each.
dwarf partition	A partition that ends short of the ceiling.
dwelling	Any building or portion of a building designed or occupied in whole or in part as a place of residence.
dwelling unit	Any room or group of rooms designed as the living quarters of one family or household, equipped with cooking and toilet facilities, and having an independent entrance from a public hall or from the outside.
eaves	The portion of a sloping roof that projects beyond the outside walls of a building.
economic life	The life expectancy of a property during which it can be expected to be profitably utilized.

economic obsolescence	Obsolescence caused by factors extraneous to the property. Also referred to as external obsolescence.
effective age	The age of a structure as compared to other structures performing like functions. For mass appraisal purposes and for the valuation of real property within the State of Indiana, the condition rating will reflect the effective age of the structure. <i>See also</i> actual age.
effective assessment date	The date as of which the value estimate is applicable. In this publication, the effective assessment date is March 1, 2011.
effective depth	The depth, expressed in feet, upon which the selection of the depth factor is based.
effective frontage	The amount of frontage, expressed in linear feet, to which the unit land value is applied. The methods for determining effective frontage are described in Chapter 2, Book 1.
effective valuation date	In reference to a revaluation program, the date as of which the value estimate applies. In this publication, the effective valuation date is March 1, 2011.
elevation	A drawing representing a projection of any one of the vertical sides or vertical cross sections of a building or of any other object.
encroachment	The displacement of an existing use by another use.
environmental deficiency	A neighborhood condition such as adverse land uses, congestion, and poorly designed streets, operating to cause economical obsolescence and, when coupled with excessive structural deterioration, blight.
equalization	A mass appraisal or reappraisal of all property within a given taxing jurisdiction with the goal of equalizing values in order to assure that each taxpayer is bearing only the fair share of the tax load. It may be used synonymously with revaluation program.
equity	The tax load is distributed fairly or equitably. It is the opposite of inequity, which refers to an unfair or unequitable distribution of the tax burden. Inequity is a natural product of changing economic conditions and can be effectively cured only by periodical equalization programs.
excessive frontage	An amount of frontage that is greater than the established front footage standard for a particular geographic area. The value adjustment for excessive footage is expressed as a negative influence factor.
expando (or tip-out)	A designed room exterior that is transported as part of the home and, when expanded, or tipped out, creates an extension to a specific room.
facade	The face of a building.
fascia	A flat board, band, or face located at the outer edge of the cornice. Wood or other trim used to cover the ends of the exposed rafters at the edge of the roof.

fiberboard	A type of building board used for insulation, made of reduced fibrous material such as wood, cane, or other vegetable fibers.
field crew	The total professional staff assigned to a specific appraisal project, including listers, reviewers, staff appraisers, and clerical and administrative supporting personnel.
fire resistant construction	Fire resistant structural floor and roof components consisting of formed concrete on steel framing or light concrete, metal deck, flexicore, gypsum, or similar materials on open steel joists and supported by load bearing walls of steel framing.
firebrick	Brick made to withstand a high temperature that is used for lining chimneys, incinerators, fireplaces, and other similar locales.
fireproof building	A building in which all parts carrying loads or resisting stresses and all exterior and interior walls, floors, and staircases are made of incombustible materials and in which all metallic structural members are encased in materials, that remain rigid at the highest probable temperature during a fire, or are amply insulated from the extreme temperature of a fire.
fireproof steel construction	Framed construction with fireproof structural floor and roof components consisting of either formed or precast concrete, supported by fireproof structural steel framing. The fireproofing may be masonry, poured concrete, plaster, sprayed asbestos, or any similar material yielding a similar fire resistance rating.
firewall	A wall of fire resisting material erected between two parts of a building to prevent the spread of fire from one part to the other.
flashing	Sheet metal or other impervious materials used in roof construction to prevent water seepage between joints, such as around chimneys, dormers, roof hips, and roof valleys. <i>See also</i> step flashing.
flat	One of the following: <ul style="list-style-type: none">■ any one floor of a building two or more stories high, each floor of which constitutes a single dwelling unit and has a private street entrance.■ the building containing two or more floors.
flat roof	A roof that is flat or sloped only enough to provide proper drainage.
footing	A spreading base to a wall, column, or other supporting member, which serves to widen the ground area to which structural loads are transmitted.
‘Form 11’	<i>See</i> assessment notice.
foundation	The structural members below grade level, or below the first tier of beams above grade level, which transmit the load of a superstructure to the ground.

foundation vent	An opening that permits the entry and circulation of air within the enclosed foundation.
framing	The structural steel or wood members (columns, rafters, girts, purlins, brace rods, and so forth) that go together to make up the skeleton of a structure ready for covering to be applied.
front foot	A strip of land one (1) foot wide that fronts on a desirable feature, such as a road or lake, and extends for the entire depth of the parcel.
frost line	The deepest level below grade to which frost penetrates in a geographical area.
functional obsolescence	Obsolescence caused by factors inherent in the property itself.
functional utility	The composite effect of a property's usefulness and desirability upon its marketability.
furring strips	Thin wood, brick or metal applied to joists, studs or wall to form a level surface (as for attaching wallboard) or airspace.
gable	One of the following: <ul style="list-style-type: none">■ The triangular portion of a wall between the slopes of a double sloping roof.■ The whole of the wall containing a triangular portion as described under this subdivision.■ A portion of a building extending from the remainder of the building and covered with a gable roof.
gable roof	A double-sloped roof whose cross section is in the shape of the inverted letter V.
gambrel roof	A curbed gable roof.
girder	A large or principal beam used to support concentrated loads at isolated points along its length. Girders usually support the beams and structure above.
girt	Heavy timber framed into corner posts as support for the structure.
grade	The classification of an improvement based on certain construction specifications, design and quality of materials and workmanship.
grade factor	A factor or multiplier applied to a base grade level for the purpose of interpolating between grades or establishing an intermediate grade.
grantee	A person to whom property is transferred and property rights are granted by deed, trust instrument, or other similar documents.
grantor	A person who transfers property or grants property rights by deed, trust instrument, or other similar documents.

gross area	The total floor area of a building measured from the exterior of the walls.
ground lease	A document entitling the lessee certain specified rights relating to the use of the land.
ground story	The first story lying wholly above the ground level.
header	One of the following: <ul style="list-style-type: none">■ a structural member that is laid perpendicularly to a parallel series of similar members and against which the parallel members abut.■ a brick or other piece of masonry that is laid in a wall with its longest dimension extending along the thickness of the wall.
hearth	The floor of a fireplace or the area directly in front of the fireplace. It can be raised or flat as in a stepped hearth or a marble hearth.
heat pump	A compression cycle system used to supply heat to a temperature-controlled space, which can also remove heat from the same source.
hip	A sloping line along which two roof surfaces meet to form an external angle of more than 180 degrees.
hip rafter	A rafter placed in an inclined position to support the edges of two sloping roof surfaces that meet to form an external angle of less than one hundred eighty degrees.
hip roof	One of the following: <ul style="list-style-type: none">■ any roof having one or more hips.■ usually a roof with four sloping sides meeting along four hips or along four hips and a ridge.
homesite	A land area of one (1) acre per residential site on a parcel containing one (1) or more acres. If a developed residential site is less than one (1) acre, the homesite is the entire land area.
horizontal costs	Costs included for the components of the structure that are horizontal in nature and are directly linked to the square footage of the floor area in the building. These costs include, but are not limited to floor slabs, gypsum, structural floors, roof covering, floor covering, ceiling covering, roof structure, any insulation or extras that can be directly attributed to the square footage of the structure.
hotel	A building designed for transient or semitransient residential use. It is divided into furnished single rooms and suites, and has such accommodations as lounges, public dining rooms, and maid service.
HUD code	The federal adopted standards of construction as outlined in the Federal Manufactured Home Construction and Safety Standards Act of 1974, effective June 15, 1976.
i-beam	Rolled steel beam or built-up beam of an I-section.

improved land	Land developed with a water well/septic system or water hook-up/sewage disposal hook-up, and landscaping, walkways and residential driveway.
improved land value	The 2011 cost of vacant land plus the depreciated cost of installing water and sewage disposal systems landscaping, walkways and residential driveway.
industrial park	A subdivision designed and developed to accommodate specific types of industry.
industrial property	Land, improvements, or machinery, or all three, used or adaptable for use in the production of goods. It also includes supporting auxiliary facilities.
influence factor	A multiplier that is applied to the value of land to account for characteristics of a particular parcel of land that are peculiar to that parcel. The factor may be positive or negative and is expressed as a percentage.
institutional property	Land and improvements used in conjunction with providing public services and generally owned and operated by the government or other nonprofit organizations, such as hospitals, schools, or prisons.
jamb	Upright member forming the side(s) of a door or window opening.
joist	One of a series of small parallel beams laid on edge and used to support floor and ceiling loads. It is usually supported by larger beams and girders. They may be wood, steel, or concrete.
knee brace	Diagonal member placed across the inside angle of framework to stiffen the frame.
lally column	Concrete-filled cylindrical steel structural column.
land classification	The classification of land based upon its capabilities for use.
land contract	A purchase allowing the grantee possession of the property and the grantor retaining the deed to the property until the terms of the contract are met.
land use restrictions	Legal restrictions regulating the use of the land.
land value maps	Maps used in conjunction with mass appraising. It is drawn to a small scale and shows comparative unit land values on a block by block basis.
landscaping	Natural features such as lawns, shrubs, and trees added to a plot of ground or modified in such a way as to make it more attractive.
lean-to roof	One of the following: <ul style="list-style-type: none"> ■ a roof having a single sloping side that is supported at the upper edge by the wall of an attached building or of a larger and higher portion of the same building. ■ any roof with a single slope.

lease, lessee, or lessor	A written contract by which one party (lessor) gives to another party (lessee) the possession and use of a specified property for a specified time, and under specific terms and conditions.
leasehold	A property held under the terms of a lease.
leasehold improvements	Additions, renovations, and similar improvements made to a leased property by the lessee.
legal description	A description of real property by government survey, metes and bounds, or lot numbers of a recorded plat.
let-in braces	The diagonal braces notched into the studs of a wood framed house.
light, heat, or power company	A company that is engaged in the business of furnishing light, heat, or power by electricity, gas, or steam. Light, heat, and power companies include investor-owned electric and steam heat companies, rural electric membership corporations, or natural gas distribution companies.
lintel	A beam over a wall opening, such as a door or windows, designed to carry the load of the wall over the opening. Horizontal steel member spanning an opening to support the load above.
lister	A field inspector whose principal duty is to collect and record property data.
live load	Any load on a structure other than a dead load, including the weight of persons occupying the building and freestanding objects.
locally assessed personal property (utilities)	<p>Tangible personal property owned or used by a public utility company, excluding a railroad company, that is not used as part of the company's production plant, transmission system, or distribution system. Locally assessed personal property is reported on the appropriate form by the public utility company to the assessing official of the jurisdiction where the property is located.</p> <p>In general, locally assessed personal property consists of the following:</p> <ul style="list-style-type: none"> ■ automotive and other mobile equipment, other than that of a bus company or railroad company ■ office furniture and fixtures ■ maintenance equipment not used as part of the production, transmission, or distribution system including general plant related items such as stores, tools, shops, and garage equipment ■ inventory of materials held for use in production and property held for sale in the ordinary course of trade or business ■ other tangible personal property that is not used as a part of the public utility company's production plant, transmission system, or distribution system.

locally assessed real property (utilities)	Real property owned or used by a public utility company that is assessed by the assessing official of the jurisdiction where it is located. Real property includes both land and improvements. The rights-of-way of a public utility company are not locally assessed real property. Of the land and improvements owned by a railroad company, only the right-of-way land and buildings leased to commercial tenants, the land adjoining the right-of-way devoted to industrial parks, any abandoned right-of-way, and other railroad land and buildings used for purposes other than railroad operations are locally assessed real property.
loft	One of the following: <ul style="list-style-type: none"> ■ An unpartitioned or relatively unpartitioned upper story of a building designed for storage, wholesaling, or light manufacturing. ■ An area of a residential dwelling which is characterized as a finished platform-type area overlooking the first floor.
loft building	A building having three or more stories with few or no interior bearing walls and designed for storage, wholesaling, or light industrial purposes.
louver or louvre	A ventilator containing slats that are placed lengthwise across the ventilator opening, each slat being slanted in such a manner as to overlap the next lower slat and to permit ventilation but exclude rain.
mansard roof	A special type of curb roof in which the pitch of the upper part of each of the four equally sloping sides is small and the pitch of the lower part is great. A series of dormers project from the lower part of the roof.
manufactured home	A dwelling unit that was designed and built in a factory, and bears a seal certifying that it was built in compliance with the Federal Manufactured Home Construction and Safety Standards Act of 1974. A mobile home built on or after June 15, 1976, may be referred to as a manufactured home.
manufactured room addition	An addition to the home that is factory assembled and transported to the site in a similar fashion as the factory assembled home. The manufactured room addition is designed to be an integral part of the home.
Market value in use	See use value.
marquise	A flat roof-like structure that shelters a doorway. It has no floor beneath it and is usually supported wholly from the walls or the building.
mass appraisal	Appraisal of property on a wholesale scale, such as an entire community, generally for ad valorem tax purposes, using standardized appraisal techniques and procedures to effect uniform equitable valuations within a minimum of detail, within a limited time period, and at limited cost.
mat foundation	Continuous reinforced concrete foundation constructed under the entire building as a unit.

Member Appraisal Institute (M.A.I.)	A professional designation conferred by the American Institute of Real Estate Appraisers upon qualifying real estate appraisers.
mezzanine	A low story formed by placing a floor between what would ordinarily be the floor and ceiling of a high story. The mezzanine floor frequently has a smaller area than other floors and is usually between the first and second stories.
mill construction	A type of construction in which the exterior walls are masonry, load bearing walls in which the structural members are of heavy timbers. It is further characterized by an open design and by other safeguards against fire hazards. Sometimes this is referred to as slow burning construction.
millwork	All of the wooden portions of a building, whether frame construction or otherwise, that are customarily purchased in finished form from a planing mill, such as doors, windows, trim, and balusters.
mineral rights	The right to extract subterranean deposits such as oil, gas, coal, and minerals, as specified in the grant.
minimum rental	That portion of the rent in a percentage lease that is fixed.
mobile home	A transportable, factory assembled home of at least 35 feet in length, intended for year round occupancy, and transportable on its own chassis. A factory assembled home built before June 15, 1976, that uses the transportation undercarriage as an essential construction component of the structure is referred to as a mobile home.
model method	A method of computing the replacement cost of an improvement by applying the cost of a specified model and adjusting the cost to account for specified variations between the subject improvement and the model.
modernization	The corrective action taken to update a property so that it conforms with current standards.
modular home	A transportable, factory assembled home that is built to meet local and state building code requirements for industrialized housing. A panelized or prefabricated home, which consists of site-assembled factory-built components, is an example of a modular home. A modular home is assessed under Schedule A.
monitor roof	A type of gable roof, commonly found on industrial buildings, having a small raised portion along the ridge with openings for the admission of light and air.
mortgage	A legal document by which the owner of a property (mortgagor) pledges the property to a creditor (mortgagee) as security for the payment of a debt.
mullion	Vertical member forming a division between adjoining windows.

multiple family dwelling	A building designed as a place of residence for more than two families or households.
neighborhood	A geographical area exhibiting a high degree of homogeneity in residential amenities, land use, economic and social trends, and housing characteristics.
neighborhood trend	Three stages in the life cycle of a neighborhood. The stages are the <ul style="list-style-type: none"> ■ improving stage characterized by development and growth ■ static stage characterized by a leveling off of values ■ declining stage characterized by infestation and decay.
net lease	A lease under which the lessee assumes to pay all applicable operating expenses related to the cost of ownership. It is also referred to as “net net”, or “net net net lease”.
net sales	Gross sales less returns and allowances.
net sales area	The actual floor area used for merchandising, excluding storage rooms, utility, and equipment rooms.
nonconforming use	A use which, because of modified or new zoning ordinances, no longer conforms to current use regulations, but which is nevertheless upheld to be legal so long as certain conditions are adhered to.
observed depreciation	Loss in value that is discernible through physical observation by comparing the subject property with a comparable property either new or capable of rendering maximum utility.
obsolescence	A diminishing of a property’s desirability and usefulness brought about by either functional inadequacies or super-adequacies inherent in the property itself, or adverse economic factors external to the property. <i>See also</i> depreciation.
one story	A building having no finished story above the ground story.
one-half story	<ul style="list-style-type: none"> ■ For buildings with a mansard or gambrel roof, a finished portion of a building that lies above the wall plate or cornice and that has a usable floor area substantially smaller than that of the next lower story. ■ For all other buildings, a finished portion of a building that is above one or more full stories, that is wholly or partly within the roof frame, and that has one or more exterior walls substantially lower than the full height of the story.
over-assessed	A condition wherein a property is assessed proportionately higher than comparable properties.
overhang	A finished portion of a building that extends beyond the foundation line of a one story structure or beyond the exterior walls of the ground story in the case of a multistory structure.
parapet	The portion of the vertical wall of a structure that extends above the roofline at the intersection of the wall and roof.

parcel	A piece of land with same ownership.
partition wall	An interior bearing or nonbearing wall which separates portions of a story.
party wall	<p>A wall held in common ownership between two structures. When calculating the linear feet of perimeter walls for a structure with a party wall, calculate the length of the perimeter wall as follows:</p> <ul style="list-style-type: none"> ■ For a party wall with an unfinished interior surface, apply fifty percent of the length of the party wall to the perimeter calculation. ■ For a party wall with a finished interior surface, apply 60% of the length of the party wall to the perimeter calculation.
percentage lease	A type of lease in which the rental is stipulated to be a percentage of the tenant's gross or net sales, whichever is specified.
perimeter-to-area ratio	<p>The perimeter-to-area-ratio is calculated as follows:</p> <p>Perimeter area ratio = $(LF \div SF) \times 100 = \underline{\hspace{1cm}}$ (round to nearest whole number)</p> <p>Where:</p> <p>LF = building's total linear footage</p> <p>SF = building's total square footage</p>
permanent parcel number	An identification number that is assigned to a parcel of land to identify that parcel from any other parcel within a given taxing jurisdiction.
personal property	Property that is not permanently affixed to and a part of the real estate, and further defined by state statute and rule.
pier	<p>One of the following:</p> <ul style="list-style-type: none"> ■ A thick, solid mass of masonry that is fully or partially isolated from a structural standpoint and that is designed to transmit vertical loads to the earth. ■ A structure projecting from land into water for use in loading and unloading vessels.
pilaster	A flat faced pillar projecting somewhat from, but engaged in, the wall of a building and used for decorative purposes or to help support truss and girder loads, or both.
pile	A heavy timber, metallic, or masonry pillar forced into the earth to form a foundation member.
pipeline company	A company that is engaged in the business of transporting or transmitting any gas or fluid (except water) through pipes.
pitch	The slope of any structural member, such as a roof or rafter, usually expressed as a simple fraction representing the rise per lateral foot.
plan	A drawing representing a projection of any of the floors or horizontal cross sections of a building or of the horizontal plane of any other object or area.

platform framing	System of wood frame house construction using wood studs one-story high finished with a platform consisting of the underflooring for the next story.
precast concrete	Reinforced concrete structural members manufactured to specific specifications at one location and transported to the construction site.
primary commercial or industrial land	<p>The primary building or plant site. The following are examples of primary land</p> <ul style="list-style-type: none"> ■ land located under buildings ■ regularly used parking areas ■ roadways ■ regularly used yard storage ■ necessary support land.
property class	A division of like properties generally defined by statute and generally based upon present use.
property inspection	A physical inspection of a property for the purpose of collecting or reviewing property data.
Property Record Card	A document specially designated to record and process specified property data. It may serve as a source document, a processing form, or a permanent property record.
Property Tax Assessment Board Of Appeals	The county board established under IC 6-1.1-28 and charged with the responsibility of reviewing assessments under IC 6-1.1-13 to assure that properties are assessed at a uniform level.
public utility company	A company that is subject to taxation under IC 6-1.1-8.
public utility property	Property devoted to the production of commodities or services for public consumption under the control of government agencies such as the Indiana Utility Regulatory Commission.
purlin	A beam running along the underside of a sloping roof surface and at right angles to the rafters, used to support the common rafters, and usually supported in turn by larger structural members, such as trusses or girders. It usually runs the along the length of a building.
pyramid roof	A hip roof having four sloping triangular sides, usually of equal pitch, meeting together at the peak.
quoin	Corner blocks of masonry, stone, or brick set at the corner of a structure in blocks forming a decorative pattern.
radiant heat	Heating system in which warm or hot surfaces are used to radiate heat into the space to be conditioned.
rafter	A structural member placed, as a rule, in a sloping position and used as the supporting element for the structural material forming the plane of the roof.

railroad company	<p>A company that owns or operates a:</p> <ul style="list-style-type: none"> ■ steam or electric railroad ■ suburban or interurban railroad ■ switching or terminal railroad ■ railroad station, track, or bridge ■ facility that is part of a railroad system.
ramp	An inclined plane connecting two different floor levels and used in lieu of steps.
real estate	The physical land and appurtenances affixed to it.
real property	<p>Any one of the following:</p> <ul style="list-style-type: none"> ■ land located within this state. ■ a building or fixture situated on land located within this state. ■ an appurtenance to land located within this state. ■ an estate in land located within this state, or an estate, right, or privilege in mines located on the land or minerals, including, but not limited to, oil and gas, located in the land, if the estate, right, or privilege is distinct from the ownership of the surface of the land ■ a riverboat on which lawful gaming is authorized and licensed under IC 4-33.
real property mobile home	<p>A mobile home that meets one of the following requirements:</p> <ul style="list-style-type: none"> ■ permanently attached to a foundation or ■ the owner has surrendered the certificate of title under IC 9-17-6-15.1.
reassessment	The revaluation of all properties within a given jurisdiction for the purpose of establishing a new tax base.
reinforced concrete construction	Fireproof structural floor and roof components consisting of either formed or precast concrete, supported by reinforced concrete framing.
replacement cost	The cost of constructing an improvement which offers the same utility as the subject improvement, using modern construction materials and techniques.
reproduction cost	The cost of constructing an exact replica of a subject improvement, using cost schedules designed from a specific time.
reserve for replacements	A reserve established to cover renewal and replacements of fixed assets.
residential property	Vacant or improved land devoted to, or available for use primarily as, a place to live. Residential property is normally construed to mean a structure where less than three families reside in a single structure.
retaining wall	A wall designed primarily to withstand lateral pressures of earth or other filling or backing deposited behind the wall after construction.

ridge	A horizontal line along which the upper edges of two roof surfaces meet to form an external angle of more than 180 degrees.
ridge beam or pole	The highest horizontal member of a roof receiving the upper ends of the rafters.
ridged roof	A roof having one or more ridges.
rise	In general, any vertical distance, such as the rise of a roof, which is the distance between the top of an exterior wall and the peak of the roof, or the rise of a stair, which is the distance from tread to tread.
riser	The upright member of a stair extending from tread to tread.
riverboat	A self-propelled excursion boat located in a county described in IC 4-33-1-1 on which lawful gaming is authorized and licensed under IC 4-33.
roof slope	The angle that a roof's surface makes with the horizontal. Usually expressed as a certain rise in 12 inches of run.
row dwelling	Any one of a series of similar single- family, two-family, or multiple-family dwellings having one or more contiguous common or party walls.
salvage value	The price one would be justified in paying for an item of property to be removed from the premises and used elsewhere.
sash	The wooden or metal framework in which the glass of a door or window is set.
saw tooth roof	A roof with a series of parallel sloping surfaces interspersed between a series of vertical surfaces that rise from the lower edges of the sloping surfaces and contain windows for the admission of light and air.
secondary commercial or industrial land	Land used for purposes that are secondary to the primary use of the land. The following are examples of secondary land: <ul style="list-style-type: none"> ■ parking areas that are not used regularly ■ yard storage that is not used regularly.
secondary recovery method	Includes, but is not limited to, the stimulation of oil production by means of the injection of water, steam, hydrocarbons, or chemicals, or by means of in situ combustion. If the oil is extracted by use of a secondary recovery method, the total assessed value of the interest in the oil equals one-half the assessed value computed under a formula.
sewage company	A company that is engaged in the business of operating a sewage system or a sewage treatment plant.
sheathing	Rough boarding (usually plywood or wafer board) on the outside of a wall or roof over which the siding or shingles are attached.

sill	One of the following: <ul style="list-style-type: none"> ■ the lower horizontal part or the threshold of a window or door case ■ the lowest horizontal structural member of a frame building upon which the superstructure is supported.
single pitch roof	Any roof with a single slope other than a lean-to roof.
single purpose building	A building designed for a specific purpose and that cannot be used for another purpose without substantial alterations.
site development cost	The cost incurred in the preparation of land for development.
size	The actual exterior wall dimensions of the structure, rounded to the nearest foot.
sleeper	A structure member laid horizontally on the ground or on a masonry base as a support to a floor or other superstructures.
soffit	The underside of any subordinate member of a structure, such as the underface of a roof overhang or canopy.
soil productivity	The capacity of a soil type to produce crops.
sound value estimate	An estimate of the depreciated value of an improvement made directly by comparing it to improvements of comparable condition, desirability, and usefulness without first estimating its replacement cost new.
spandrel beam	A wall beam supporting the wall above as well as the floor.
Special-purpose design	An improvement whose design is such that it limits its use to a narrow range of occupancies. Any building designed in such a way that it cannot easily be converted to another use can be considered a <i>special-purpose structure</i> . Although most buildings can be converted to alternative occupancies, conversion of special-purpose structures involves the expenditure of large sums of money and requires design expertise. Examples are steel mills, theaters, auditoriums, and churches.
specifications	A detailed description of the dimensions, materials, quantities, and structural procedures applicable to a projected or completed piece of construction.
standard depth	The lot depth selected by the assessing official as the lot depth norm for a particular area.
steel frame construction	A type of construction in which there is a framework of steel structural members for support of all loads and the resistance of all stresses.
step flashing	The interweaving of flashing with the roofing material and the materials of a vertical wall surface, required any time a vertical wall meets the roofing surface, such as in the case of a dormer, skylight, garage, or chimney.
stick-built room addition	A room addition that is built on site by conventional means. This type of addition is similar to residential type construction.

story	That portion of a building enclosed by a floor, a ceiling, and the exterior walls.
stretcher	A brick or other piece of masonry that is laid lengthwise in a wall.
stringers	Sloping board that supports the treads and risers of a step or stair.
strut	Any structural member that holds two or more other members apart counteracting a pressure that tends to bring them together.
stud	One of a series of small, slender structural members placed vertically and used as the supporting element of an exterior or interior wall.
subfloor	The flooring laid directly on top of the floor joists, but beneath the finish floor.
sublease	A subordinated lease in which the lessee of the original lease is the lessor in the new lease.
tag unit	A single section normally smaller than the original section and manufactured as part of the original mobile home design.
tax bill	An itemized statement showing the amount of taxes owed for certain property and forwardable to the party legally liable for payment.
tax book	<i>See</i> assessment roll.
tax district	A geographic area within which property is taxed by the same taxing units at the same total rate. A taxing unit is an entity that has the power to impose ad valorem property taxes.
tax duplicate	<i>See</i> assessment roll.
tax exemption	Either total or partial freedom from tax liability.
tax levy	The total revenue which is to be realized by the tax.
tax list	<i>See</i> assessment roll.
tax mapping	The creation of accurate representations of property boundary lines at appropriate scales to provide a graphic inventory of parcels for use in accounting, appraising, and assessing. These maps show dimensions and the relative size and location of each tract with respect to other tracts.
tax rate	The rate generally expressed in dollars per hundred which is to be applied against the tax base or assessed value to compute the amount of taxes. The tax rate is derived by dividing the total amount of the tax levy by the total assessed value of the taxing district.
tax roll	<i>See</i> assessment roll.
telephone, telegraph, or cable company	A company that is principally engaged in the business of communicating by electrical transmission. The term telephone, telegraph, or cable company does not include a cable television company.

tenement	A building, usually of obsolete nature, designed primarily for non-transient residential use and divided into three or more dwelling units having common stairs, halls, and street entrances, and sometimes common bath and toilet rooms.
terra cotta	A hard-baked pottery molded into decorative tiles or bricks and used particularly for facing and trim on buildings.
terrace	One of the following: <ul style="list-style-type: none">■ an unroofed level area covered with grass or masonry, or both, raised above the surrounding ground level, and having a vertical or sloping front■ a multiple-family dwelling in which the dwelling units are separated vertically by means of common or party walls.
tie	Any structural member that binds together two or more members by counteracting a stress that tends to draw them apart.
tip-out	<i>See</i> Expando.
trim	One of the following: <ul style="list-style-type: none">■ the wooden portions of a plastered room, such as the doors, windows, wainscoting, and molding, or the corresponding portions of a room in a finish other than plaster■ the contrasting elements on the exterior of a building that serve no structural purpose, but are intended to enhance its appearance.■ the hardware of a house, such as locks, hinges, or doorknobs.
truss	A structure made up of three or more members, with each member designed to carry basically a tension or a compression force. The entire structure in turn acts as a beam.
underassessed	A property that is assessed proportionately lower than comparable properties.
unfinished interior	The interior walls of a structure that contain no type of finish to the surface. The studding, surface insulation, and exterior sheathing are visible from inside the structure.
uniformity	As applied to assessing, a condition where all properties are assessed by the same standard of value.
unimproved land	Vacant land that does not have a well, septic system, water hook-up, sewage disposal hook-up, landscaping, or walkways and residential driveway.
unit cost or price	The price or cost of one item of a quantity of similar items.

unusable undeveloped commercial and industrial land	Vacant land that is unusable for commercial or industrial development.
usable undeveloped commercial and industrial land	Vacant land that is held for future commercial or industrial development.
use density	The number of buildings in a particular use per unit of area, such as a density of so many apartment units per acre.
use value	The value a specific property has for a specific use.
vacancy	An unrented unit of rental property.
vacant land	A parcel for which there is no improvement value.
valley	A sloping line along which two roof surfaces meet to form an external angle of less than 180 degrees.
valley rafter	A rafter placed in an inclined position to support the edges of two sloping roof surfaces that meet to form an external angle of less than 180 degrees.
veneer	A thin ornamental or protective facing that does not add appreciably to the strength of the body to which it is attached.
vertical costs	Costs included for the structural components that are vertical in nature and are valued according to linear surface footage. These costs include, but are not limited to: studding, wall insulation, wall sheathing, interior finish of exterior walls, brick or wood siding.
wainscot or wainscoting	One of the following: <ul style="list-style-type: none"> ■ a wooden facing on the lower portion of a contrasting interior wall. ■ a facing of marble tile, or the like, on the lower portion of an interior wall.
water distribution company	A company that is engaged in the business of selling or distributing water by pipe, main, canal, or ditch.
water frontage	Land abutting a body of water.

weighted age	Structures which have had additions built subsequent to the construction of the principal or original structure must have a "weighted" age calculated to use in place of the actual age when using the commercial and industrial depreciation tables. The method of calculating weighted age is one of weighting the actual age of the original structure and each of its additions by the square footage contained in each part of the structure.
wing	A subordinate part of a building extending from the main part, or any one of two or more substantially coordinate parts of a building that extend out from one or more common junctions.
wood frame construction	A type of construction in which there is a framework of wooden structural members for the support of all loads and the resistance of all stresses.
wood joist	construction means nonfire resistant structural floor and roof components consisting of wood subflooring or decking on wood joists, rafters or purlins that are supported by either load bearing walls constructed of timber or steel framing.
wythe	A partition between flues of a chimney.
zoned heating	A heating and cooling system capable of maintaining varying conditions for numerous rooms or zones. Individual zone valves are used to direct the refrigerant or heating product to the various zones.
zoning regulations	Government restrictions on the use of land.

Miscellaneous Information

Oil or Gas Interest

Oil or gas interests includes, but is not limited to, royalties, overriding royalties, mineral rights, or working interest in any oil or gas located on or beneath the surface of land.

An oil or gas interest is subject to assessment and taxation as real property annually by the assessing official. This interest is assessed to the person who owns or operates each oil or gas interest. The total assessed value of interest in oil located on or beneath the surface or of interest in gas located beneath the surface of a particular tract of land equals the product of the following:

- the average daily production of the oil
- three hundred sixty-five
- one-hundred percent of the posted price of oil on the assessment date.

A piece of equipment is an appurtenance to land and assessable as real property annually by the assessing official if it is incidental to and necessary for the production of oil and gas from the land covered by the oil or gas interest. Each of the appurtenances are assessed to the person who owns or operates the working interest in the oil or gas interest. This equipment includes, but is not limited to, the following: wells, pumping units, lines, treaters, separators, tanks, secondary recovery facilities.

The assessing official must apportion the total assessed value of all interests in the oil or gas among the owners of those interests.

Abbreviations

General Abbreviations

Ac	– Acre
Acg	– Acreage
Act Frt	– Actual Frontage
Bk	– Book
CI	– Corner Influence
Calc Acg	– Calculated Acreage
Dist	– District
Eff Frt	– Effective Frontage
Eff D	– Effective Depth
EMF	– Economic Misimprovement Factor
Esmt	– Easement
Frt	– Frontage
HS	– Homesite
IF	– Influence Factor
Imp	– Improvement
Irr	– Irregular
LI	– Land Improvement
L & B	– Land and Buildings
Mp	– Map
Par	– Parcel
Pg	– Page
Prop	– Property
Rd	– Road
R.O.W.	– Right-of-way
Rtg No	– Routing Number
St	– Street
Swr	– Sewer
Till	– Tillable
Topo	– Topography
Twn	– Town
Twp	– Township
UD	– Undeveloped
UI	– Unimproved
Utl	– Utility
Vill	– Village
Wd Lnd	– Woodland
Wtr	– Water
XF	– Excessive Frontage
XD	– Excessive Depth
Zng	– Zoning

GENERAL

Ag	– Agricultural
Assmt	– Assessment
Av	– Average
CDU	– Condition, Desirability, and Usefulness
Comm	– Commercial
Depr	– Depreciation
EDP	– Electronic Data Processing
Est	– Estimate(d)
EX	– Exempt
Excl	– Excluding
Gr	– Grade
G & D	– Grade and Design
I & E	– Income and Expense
Incl	– Including

Ind	– Industrial
N/A	– Not Applicable
N/C	– New Construction
NF	– Nothing Furnished
NV	– No Value
Obsol	– Obsolescence
PIF	– Price In Field
PRC	– Property Record Card
PU	– Public Utility
RC	– Replacement Cost
RCLD	– Replacement Cost Less Depreciation
RCLND	– Replacement Cost Less Normal Depreciation
Res	– Residential
RV	– Replacement Value
Schd	– Schedule
SV	– Sound Value
T or Tot	– Total
TV	– True Value
UF	– Utilities Furnished
Utl Val	– Utility Value
Val	– Value

ARCHITECTURAL

Apt	– Apartment
Art	– Artificial
Asb	– Asbestos
Att	– Attached
Bldg	– Building
Bsmt	– Basement
BT Pav	– Black Top Paving
CB	– Concrete Block
Cig	– Ceiling
Cmt	– Cement
Col	– Column
Com	– Common
Comp	– Composition
Conc	– Concrete
Const	– Construction
Dbf	– Double
DH	– Double Hung
Dk	– Deck
Dkg	– Decking
Drs	– Doors
DP	– Double Pitch
D & M	– Dressed and Matched
Dwg	– Dwelling
Elec	– Electric
Elev	– Elevators
Equip	– Equipment
Excav	– Excavation
Excl	– Excluding
Ext	– Exterior
Fibr Gls	– Fiberglass
Fin	– Finish

Fixt	–	Fixtures	Pass	–	Passenger
Flr	–	Floor	Pav	–	Paving
Flrg	–	Flooring	Pil	–	Pilaster
Ftg	–	Footing	Plk	–	Plank
Fdtm	–	Foundation	Plstr	–	Plaster
Fr	–	Frame	Plstrd	–	Plastered
Frt	–	Freight	Plbg	–	Plumbing
Galv	–	Galvanized	Pch	–	Porch
GI	–	Galvanized Iron	Purl	–	Purlin
Gar	–	Garage	Rec Rm	–	Recreation Room
Gls	–	Glass	Rftr	–	Rafter
H Col	–	H Column	RR	–	Railroad
Hd Wd	–	Hardwood	Refrig	–	Refrigerated
Htr	–	Heater	Rein	–	Reinforced
Htg	–	Heating	Rein Conc	–	Reinforced Concrete
HT	–	Hollow Tile	Ret Wl	–	Retaining Wall
Horiz	–	Horizontal	Rf	–	Roof
HP	–	Horse Power	Rfg	–	Roofing
Hse	–	House	Rm	–	Room
I Bm	–	I Beam	Shtg	–	Sheathing
Incl	–	Including	Sdg	–	Siding
I.D.	–	Inside Diameter or Identification	SP	–	Single Pitch
Int	–	Interior	SS	–	Slop Sinks
Int Fin	–	Interior Finish	Sprink	–	Sprinkler
I-Com	–	Intercom System	Sq	–	Square
Jst	–	Joist	Strs	–	Stairs
K & T	–	Knob and Tube	Std	–	Standard
Lam	–	Laminated	Stdg	–	Standing
Ldg	–	Landing	Stm	–	Steam
L & P	–	Lath and Plaster	Stl	–	Steel
Lav	–	Lavatory	Stl Pl	–	Steel Plate
L & O	–	Lead and Oil	Stge	–	Storage
Lt	–	Light	Sup	–	Supports
Ltg	–	Lighting	Sys	–	System
Lts	–	Lights	T & G	–	Tar and Gravel Tongue and Groove
Linol	–	Linoleum	Terr	–	Terrace
Mach	–	Machine	Tbr	–	Timber
Mas	–	Masonry	Toil	–	Toilet
Mech	–	Mechanical	TR	–	Toilet Room
MF	–	Mechanical Features	Unfin	–	Unfinished
Met	–	Metal	Urin	–	Urinal
Mezz	–	Mezzanine	Ven	–	Veneer
Misc	–	Miscellaneous	Vent	–	Ventilator
Mono	–	Monolithic	Vit	–	Vitrified
Obsol	–	Obsolete, Obsolescence	VT	–	Vitrified Tile
Ofc	–	Office	Wsct	–	Wainscot
o.c.	–	On Center	Whse	–	Warehouse
1 E	–	One End	w c	–	Water Closet
1 S	–	One Side	WP	–	White Pine
OF	–	Other Features	WF	–	Wide Flange
OD	–	Outside Diameter	Wind	–	Window
OH	–	Overhead or Overhang	Wir	–	Wiring
Pnt	–	Paint	Wd	–	Wood
Par	–	Parapet	WB Fp	–	Woodburning Fireplace
Pt	–	Part	Yd	–	Yard
Ptn	–	Partition	YP	–	Yellow Pine
PW	–	Party Wall			

Property Record Card Abbreviations**Number of stories in a dwelling**

1s	—one (1) story.
1-1/2s	—one and one-half (1 1/2) story.
2s	—two (2) story.

Types of construction materials

Art br	—artificial brick.
Art stn	—artificial stone.
Br	—brick.
CB	—concrete block.
Conc	—concrete.
Enal st	—enamel steel.
Fr	—frame.
Gl	—glass.
Stco	—stucco.
Stn	—stone.
Tile	—tile.

Miscellaneous base area components

A	—attic.
B	—basement.
Bay	—bay or wall projection that extends beyond the normal line of the dwelling.
C	—crawl space.
Oh	—overhang or an upper floor area that extends beyond the area below it.

Garage or carport

Bsmt G	—basement garage.
CP	—carport.
G	—garage.
IG	—integral garage.

Car capacity of a garage

1c	—one (1) car capacity.
1+c	—one and one-half (1 1/2) car capacity.
2c	—two (2) car capacity.
2+c	—two and one-half (2 1/2) car capacity.
3c	—three (3) car capacity.

Exterior features

Balc	—balcony.
BrP	—brick patio.
Cnpy	—canopy.
Conc Dk	—concrete deck.
Conc P	—concrete patio.
Conc T	—concrete terrace.
EFP	—enclosed frame porch.
EMP	—enclosed masonry porch.
FsP	—flagstone patio.
MStp	—masonry stoop.
MTer	—masonry terrace.
OFP	—open frame porch.
OMP	—open masonry porch.
Port	—portico.
WdDk	—wood deck.
WdP	—wood patio.

Miscellaneous features:

CS	—car shed.
PW	—party wall.
UF	—unfinished interior.

Miscellaneous terms:

LRP	—locally assessed real property.
LPP	—locally assessed personal property.
DIST	—distributable property.

Commercial and Industrial Features Abbreviations

Abbr.	Feature
A	Asphalt floor
AL	Aluminum
AS	Automatic sprinkler
AT	Attended
BW	Barbed wire
CW	Clerestory walls
C	Concrete floor
CA	Concrete apron
CC	Conical cover
CF	Concrete foundation
CJ	Chime joists
CN	Canopy
CT	Ceramic tile
CY	Cypress wood
D	Dirt floor
DH	Decorative housing
DL	Diving L
DR	Double deck roof
DSD	Double sliding door
DW	Double wall
E	Electric lights
EF	Express floor
ES	Electric lights and soffits
EX	Excavation
F80	80 pound factor
F100	100 pound factor
F125	125 pound factor
F150	150 pound factor
FB	Football field
FC	Flat cover
FE	Feeder
FX	Fixtures

Abbr.	Feature
IR	Irregular shape
IT	Institutional greenhouse typical
MC	Manual controls
MD	Manual doors
MDS	Manual door stops
MS	Manual sprinkler
MU	Metal units
PR	Pontoon floating roof
PDS	Power door stops
QF	Quality factor
R	Roof
RF	Roof flashing
RMS	Rear manual door stops
RMS1	Rear manual door stops-first stop
FL	Refractory lining
RPS	Rear power door stops
RPS1	Rear power doors-first stop
SF	Sand finish
SG	Service gates
S1	Site preparation
SL	Steel ladder
SSD	Single sliding door
ST	Stops
STO	Switch and turnout
SW	Single wall
T	Steel ties
TR	Top rail
TRS	Trestle-single track
TRD	Trestle-double track
TW	Triple wall
TTW	Thru-the-wall install
UAB	Utility building-average brick

Abbr.	Feature
GB	Guy band
GR	Gradient
GS	Gravel surfacing
GW	Guy wire
H	Heating
HD	Heavy duty or industrial
HS	High stress factor
IE	Institutional greenhouse elaborate

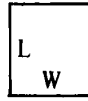
Abbr.	Feature
UACB	Utility building—average concrete block
UC	Utility building—cheap shed type
UGB	Utility building—good brick
UL	Utility building—low cost frame
UT	Umbrella top
W	Walls
WL	Wood ladder

Illustrations

The following illustrations are included to familiarize the assessor with construction characteristics and formulas for calculating the square foot area:

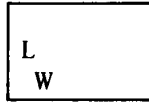
Area Calculations

SQUARE



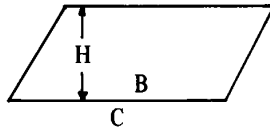
$$\text{AREA} = L \times W$$

RECTANGLE



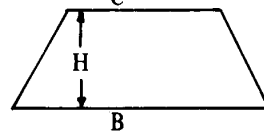
$$\text{AREA} = L \times W$$

PARALLELOGRAM



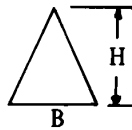
$$\text{AREA} = H \times B$$

TRAPEZOID



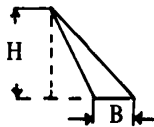
$$\text{AREA} = H \times 1/2 (B+C)$$

TRIANGLE



$$\text{AREA} = 1/2 H \times B$$

TRIANGLE



$$\text{AREA} = 1/2 H \times B$$

REGULAR POLYGONS

GENERAL

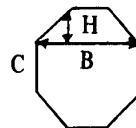
$$\text{AREA} = 1/2 \text{ SUM OF SIDES } \times \text{ INSIDE RADIUS}$$

HEXAGON



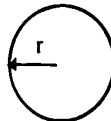
$$\text{AREA} = H \times (B+C)$$

OCTAGON



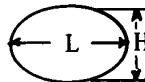
$$\text{AREA} = H \times (B+C) + C \times B$$

CIRCLE



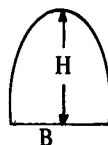
$$\text{AREA} = \pi (3.1416) \times r \times r$$

ELLIPSE



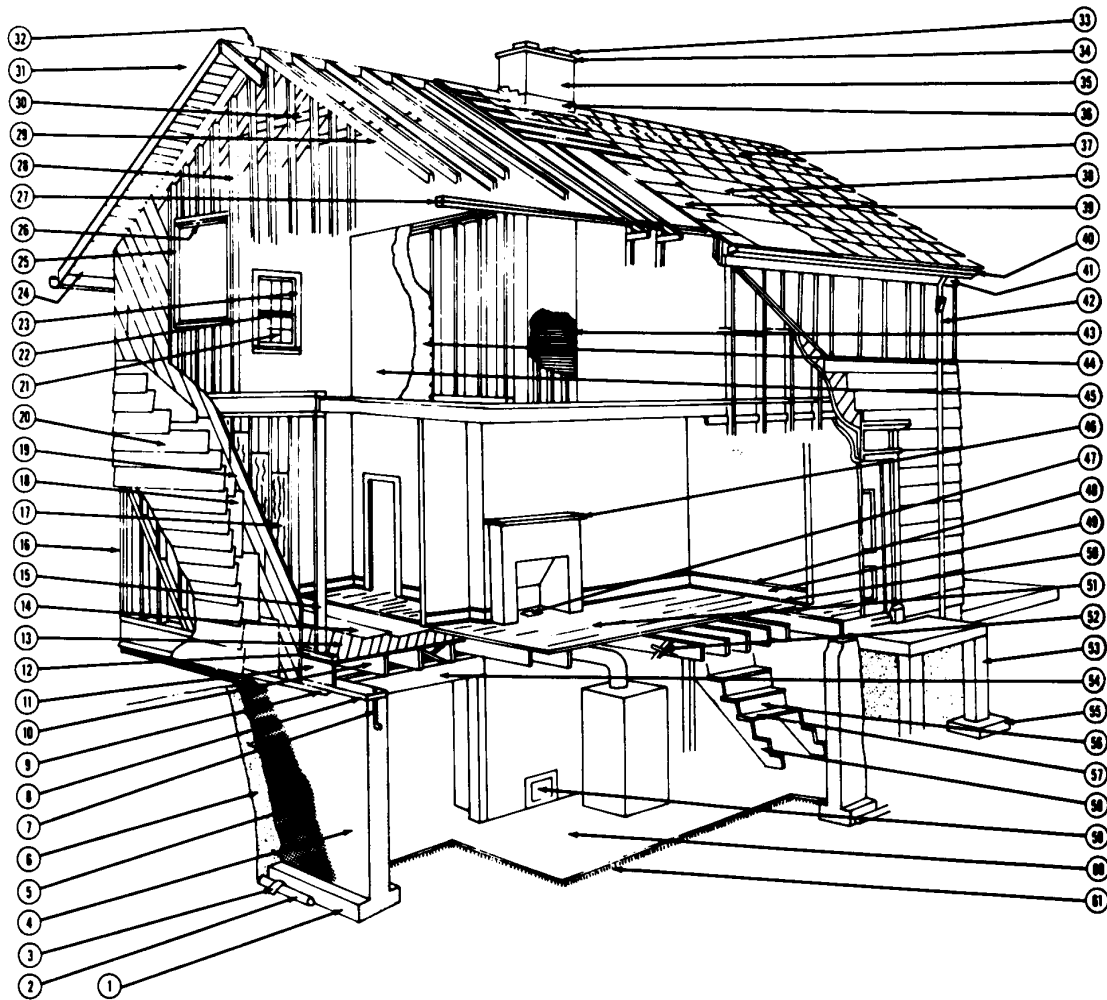
$$\text{AREA} = L \times H \times 0.7854$$

PARABOLA

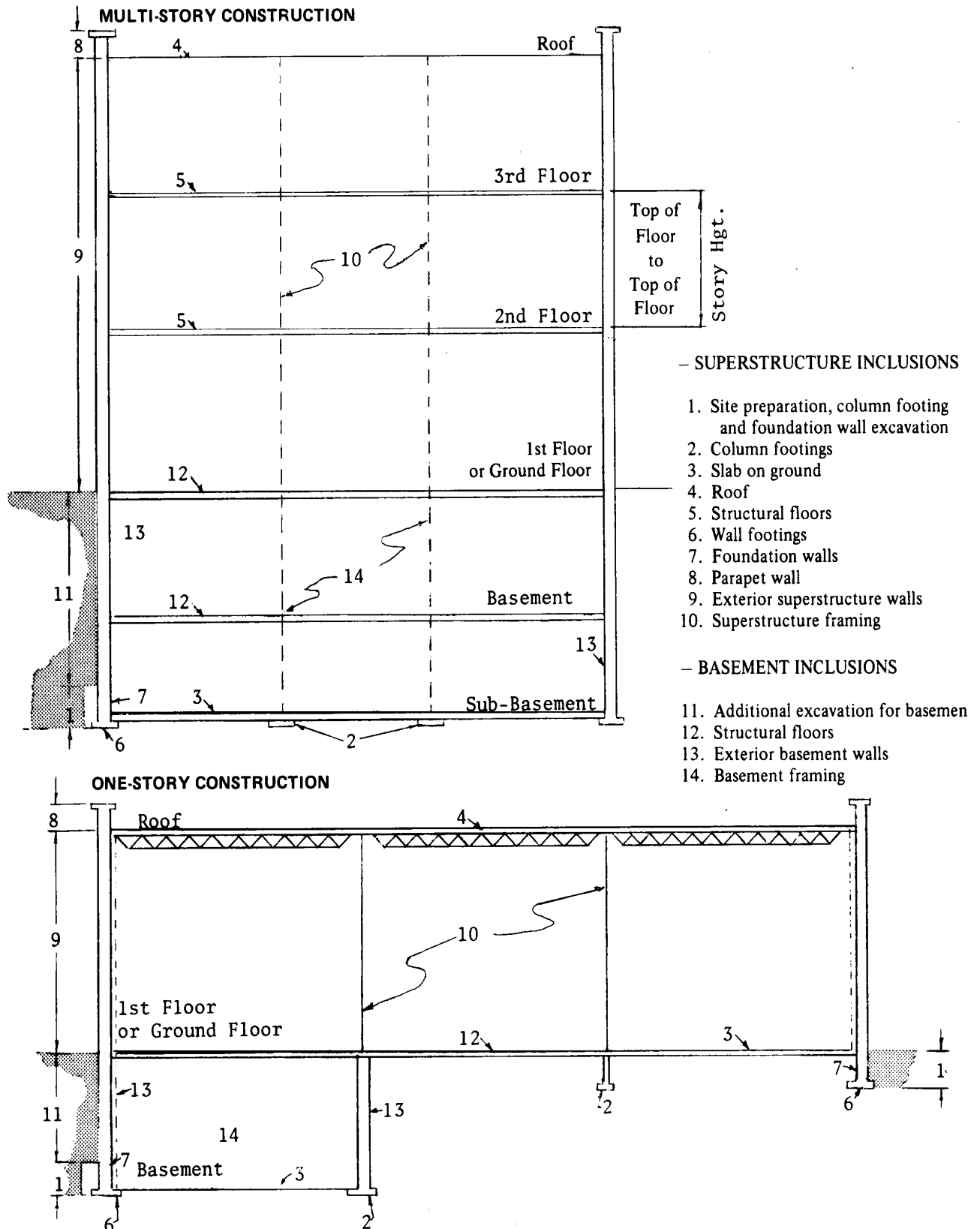


$$\text{AREA} = 2/3 \times H \times B$$

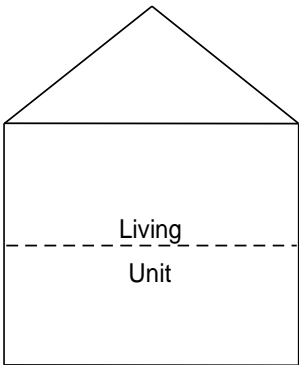
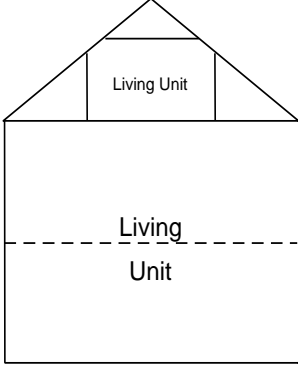
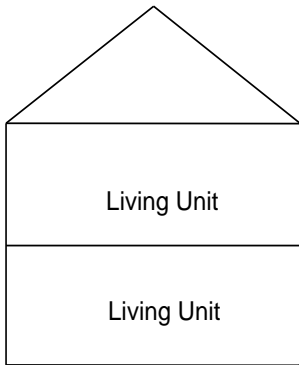
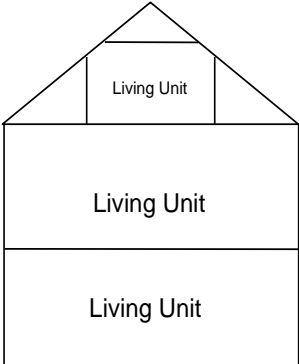
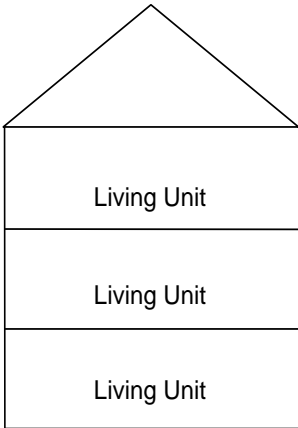
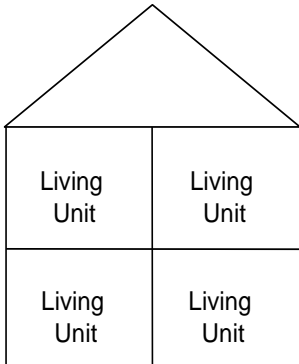
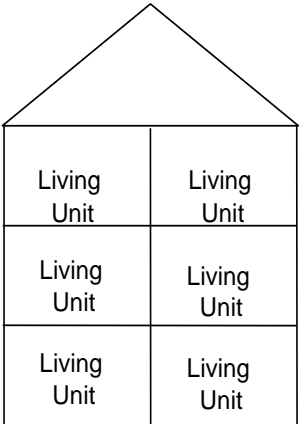
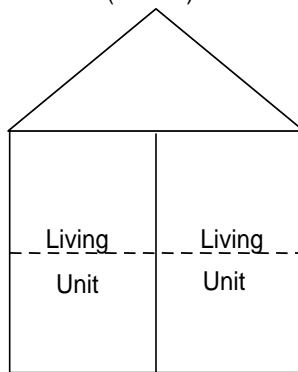
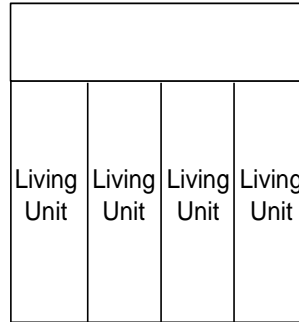
Architecture Nomenclature



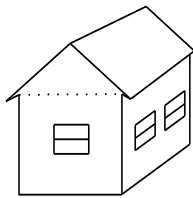
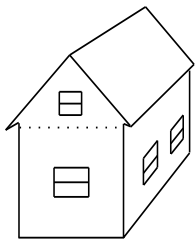
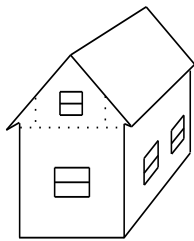
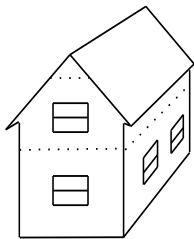
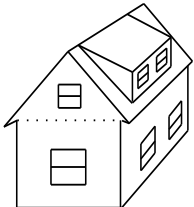
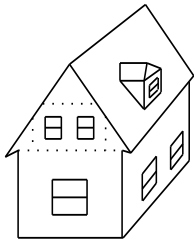
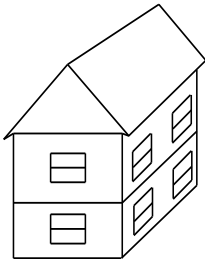
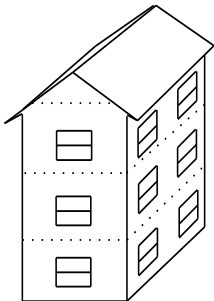
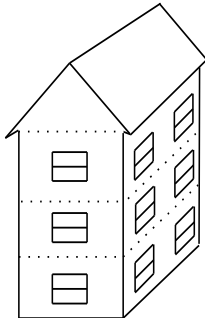
- | | | |
|------------------------------------|----------------------------|-----------------------------|
| 1. Footing | 21. Mullion | 41. Frieze board |
| 2. Foundation drain tile | 22. Muntin | 42. Downspout |
| 3. Felt joint cover | 23. Window sash | 43. Laths |
| 4. Foundation wall | 24. Eave (roof projection) | 44. Wallboard |
| 5. Dampproofing or weatherproofing | 25. Window jamb trim | 45. Plaster finish |
| 6. Backfill | 26. Double window header | 46. Mantel |
| 7. Anchor bolt | 27. Double plate | 47. Ash dump |
| 8. Sill | 28. Stud | 48. Base top moulding |
| 9. Termite shield | 29. Rafters | 49. Baseboard |
| 10. Floor joist | 30. Collar beam | 50. Shoe moulding |
| 11. Band or box sill | 31. Gable end of roof | 51. Finish flooring |
| 12. Plate | 32. Ridge board | 52. Bridging |
| 13. Subflooring | 33. Chimney pots | 53. Pier |
| 14. Building paper | 34. Chimney cap | 54. Girder |
| 15. Wall stud | 35. Chimney | 55. Footing |
| 16. Double corner stud | 36. Chimney flashing | 56. Riser |
| 17. Insulation | 37. Roofing shingles | 57. Tread |
| 18. Building paper | 38. Roofing felts | 58. Stringer |
| 19. Wall sheathing | 39. Roof boards | 59. Cleanout door |
| 20. Siding | 40. Eave trough or gutter | 60. Concrete basement floor |
| | | 61. Cinder fill |

Building Cross-Sections

Occupancy Types

<p>Single Family</p> 	<p>Single Family Conversion (2 families)</p> 	<p>Duplex</p> 
<p>Duplex Conversion (3 families)</p> 	<p>Triplex</p> 	<p>4-Family</p> 
<p>4-Family</p> 	<p>2-Family Row Type (double)</p> 	<p>Multi-Family Row Type or apartment (depending on ownership)</p> 

Story Height

<p>1 Story</p> 	<p>1 Story and Attic</p> 	<p>1 Story and Finished Attic</p> 
<p>1 ½ Story</p> 	<p>1½ Story</p> 	<p>1 ½ Story</p> 
<p>2 Story</p> 	<p>2½ Story</p> 	<p>3 Story</p> 

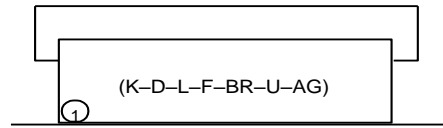
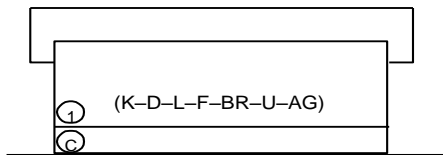
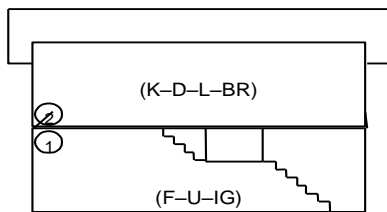
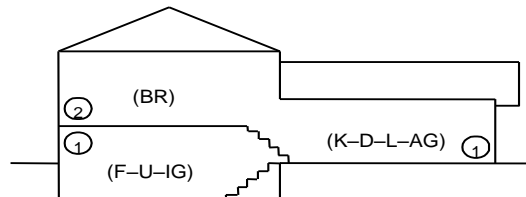
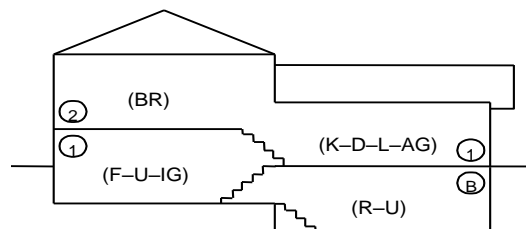
Modern Height Designs**Modern Story Height Designs**

Parenthetical symbols indicate the most typical uses at that particular level.

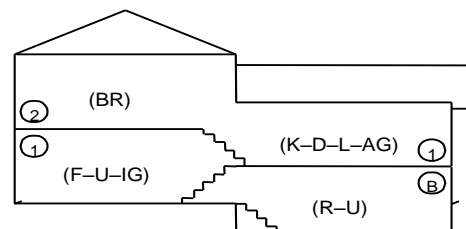
K—Kitchen	U—Utility Area
D—Dining Area	R—Recreation Room
L—Living Area	AG—Attached Garage
F—Family Room	IG—Integral Garage
BR—Bedrooms	BG—Basement Garage

Circled symbols indicate pricing levels:

B—Basement	1—First Floor
C—Crawl Space	2—Upper Floor

Ranch (on slab)**Ranch (over crawl space)****Ranch with Basement****Bi-Level (raised ranch)****Tri-Level****Tri-Level with Basement ***

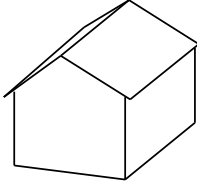
*totally below grade

Tri-Level with Basement *

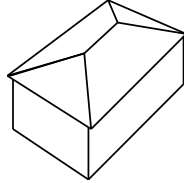
*partially below grade

Roof Types

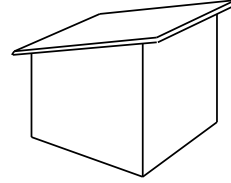
Gable



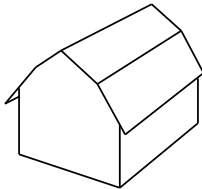
Hip



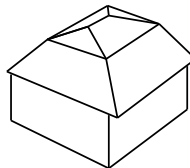
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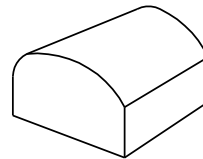
Gambrel



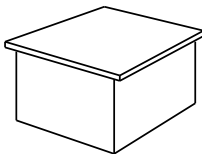
Mansard



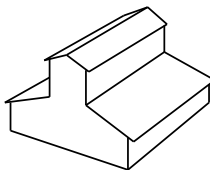
Arched



Flat



Monitor



Sawtooth

